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Bloomberg Businessweek

CHINA'S YUAN DILEMMA
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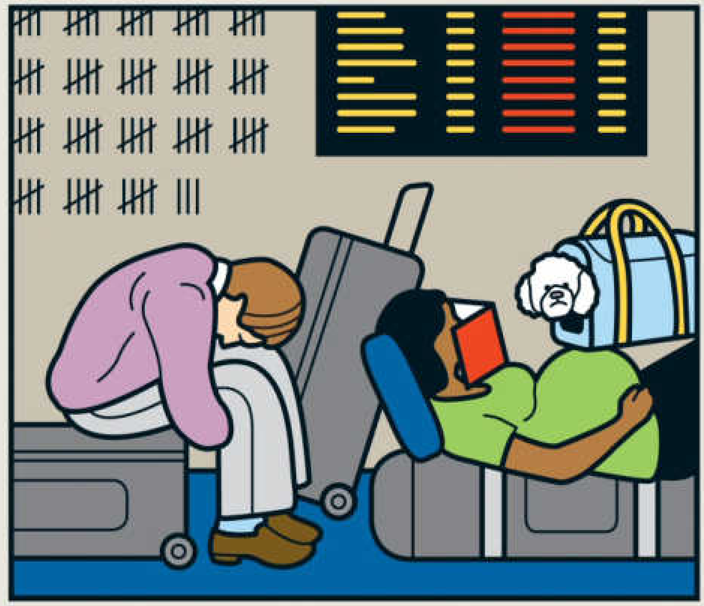
Unhappy Employees

Delayed Flights



Tech Meltdowns

Gifts for Public Officials

United's Quest to Be Less Awful

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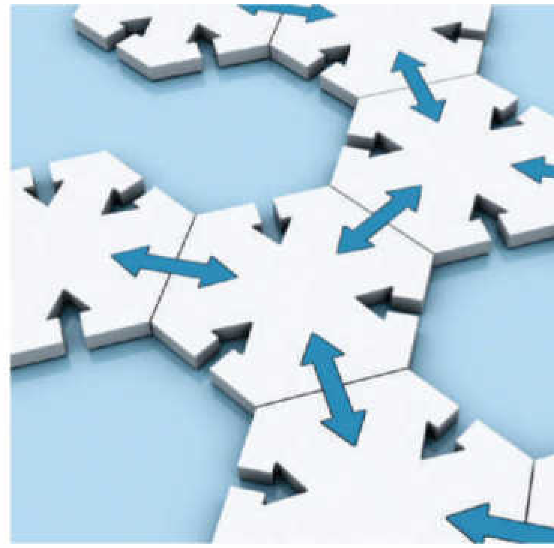
Global Risks 2016: The Resilience Imperative

Global Risks of Highest Concern Through Mid-2017

News cycles were driven by instability in 2015. A new report reveals risks are more interconnected than ever. What does this mean for businesses?



Globally interconnected risks are increasingly having profound effects on people, institutions and economies.

The challenges posed by the exodus from Syria due to conflict have inserted themselves into every nook at every level of global conversation, from regions to countries, to cities to small towns. The Middle East, however, isn't the only place where people are taking flight. According to the UN, nearly 60 million people were displaced in 2014, and the trend is pushing upward.

Such large-scale involuntary migration is atop the list of top five global risks of highest concern for the next 18 months, according to the World Economic Forum's (WEF) just released "The Global Risks Report 2016." The report is based on a survey of almost 800 members of the WEF's global multistakeholder community. In the short term, the top three risks of highest concern are related to international security.

Overall, says Cecilia Reyes, Chief Risk Officer, Zurich Insurance Group, a strategic partner in the WEF report, the emerging trend is that global risks are "more elevated and more interconnected than we've ever seen before, and demand a proactive and integrated response to address potential impacts to objectives and growth opportunities. It's now an imperative to create greater resilience in order to mitigate global risks."

The broad interconnectivity of risks exposes businesses on a number of fronts. For example, civil unrest can interrupt supply chains, halting production, damaging assets or forcing companies to abandon them; capital controls can prevent currency exchanges and conversions; and governments focused on national interests may suddenly expropriate assets, default on a contract or revoke licenses.

The business perspective

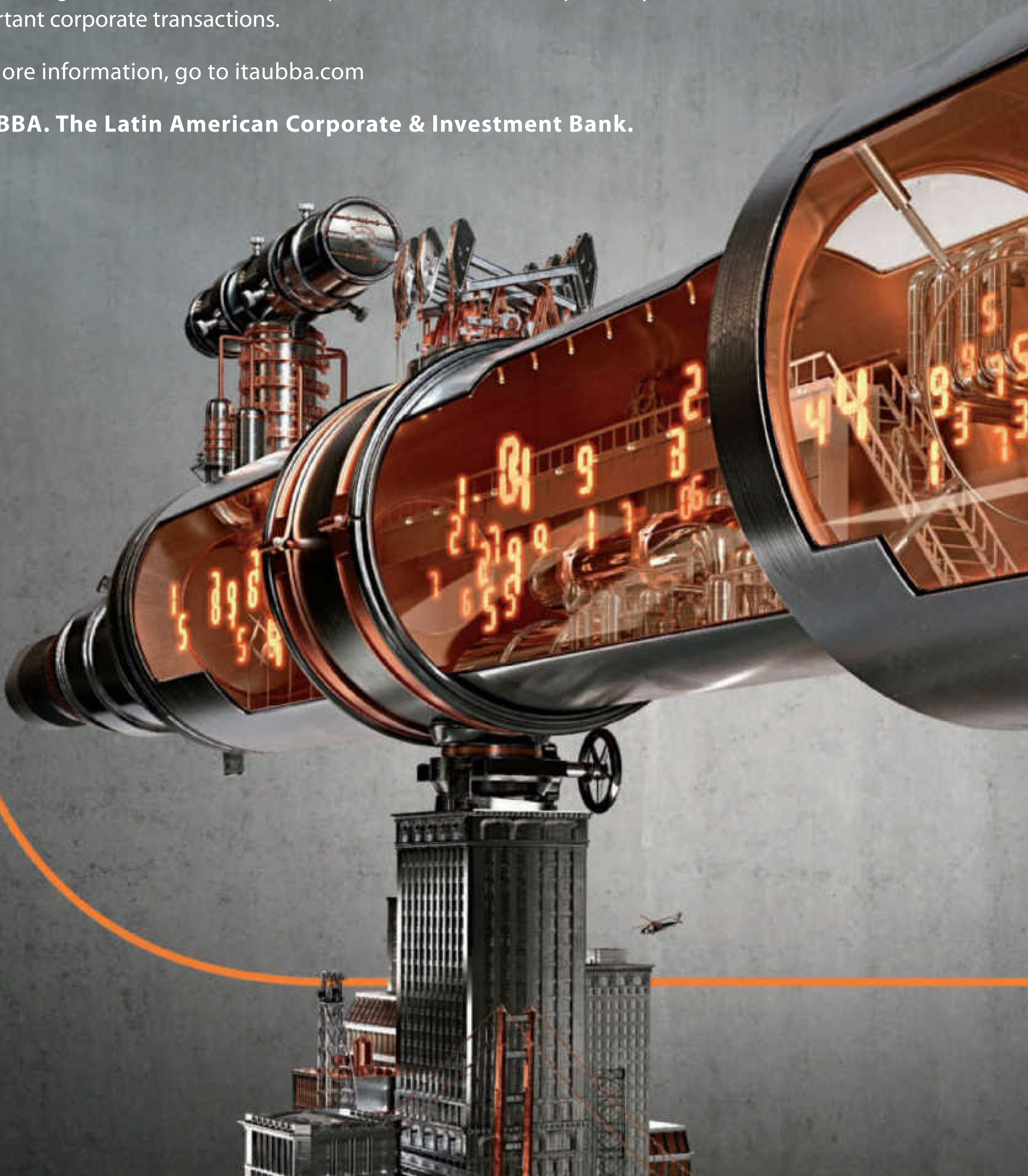
"Identifying and managing dangers and opportunities must be a job for those at the very top of a business," says Dr. Roger Barker, Director of Corporate Governance, Institute of Directors. "This isn't a tick-box compliance exercise. Directors should build in resilience to every aspect of an organization."

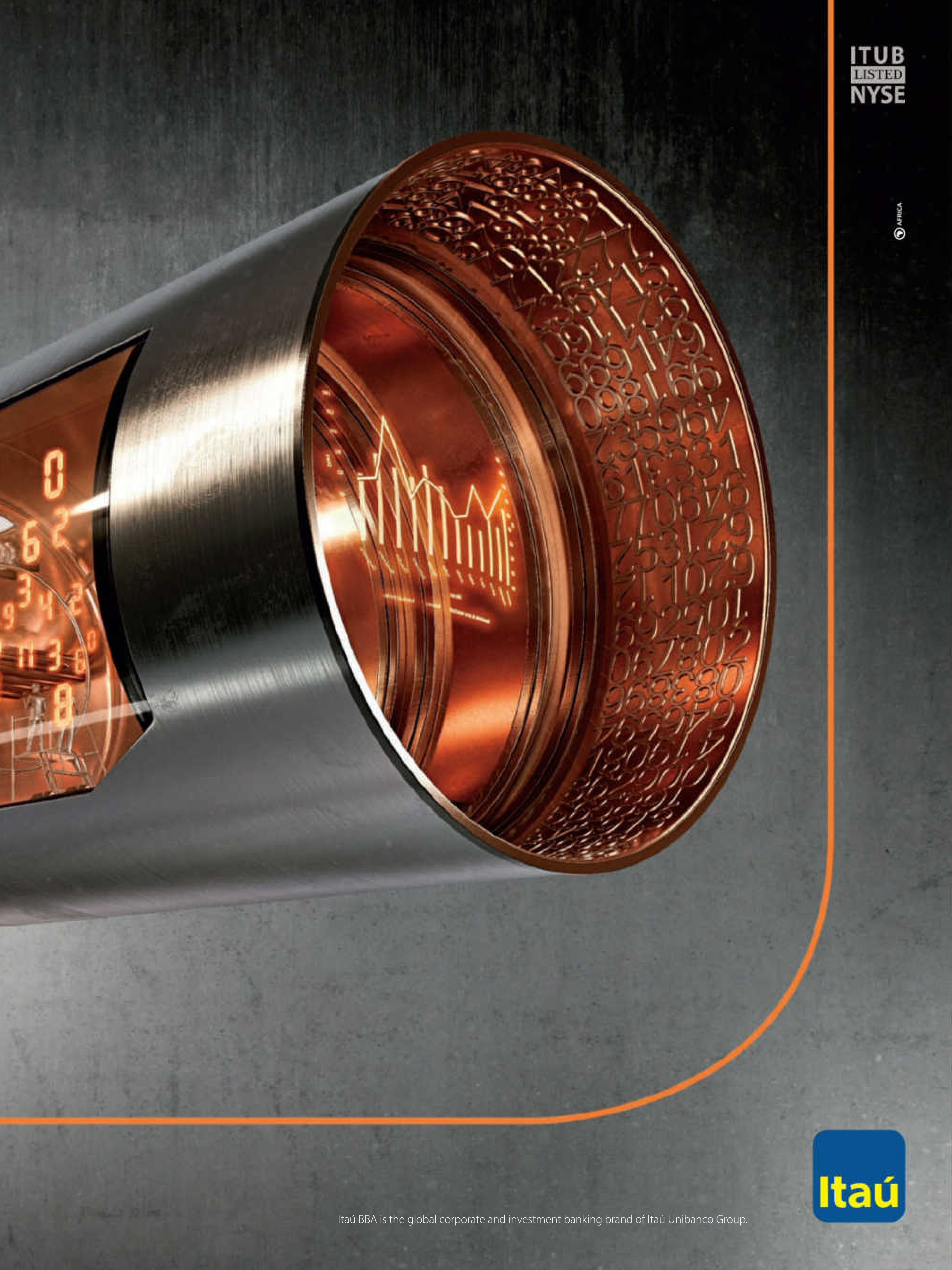
According to Reyes, "the right solutions require a holistic approach that maps all specific risks and their interdependencies. In the near term, many companies still need to recalibrate the weighting they use for political and supply chain risk management. They also need better insight of political risk management mechanisms, such as risk assessments for countries or regions, scenario planning and government and community relations programs."

"The Global Risks Report 2016" reinforces this view that businesses must strengthen scenario and emergency planning capacity to analyze complex interdependencies. For example, unemployment threatens to "de-skill" an entire generation in parts of Europe, making it difficult to find the talent necessary for businesses to compete.

"Governments, international organizations and businesses must work together to mitigate the accelerating process of risk interconnectedness," Reyes says. "Creating resilience against the immediate and long-term effects of these risks can help deliver competitive advantages to organizations and strengthen communities." ●

"Risks are more elevated and more interconnected than we've ever seen before. It's now an imperative to create greater resilience in order to mitigate global risks."
— Cecilia Reyes, Chief Risk Officer, Zurich Insurance Group

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Cover Trail

How the cover gets made

1

"The cover is about United wanting to become a better airline, and how it plans to do that."

"That's simple—cheaper tickets, more legroom, glitch-free check-ins, on-time flights, courteous employees, and unlimited booze on every flight."

"They're improving the coffee."

"Baby steps. For the cover, how about an airline safety card, but instead of emergency instructions, it's some of the terrible things that have happened at the company?"

"An airline safety card seems a little expected to me, completely unoriginal even. It's like a first idea you throw out there and then work on improving. I'm pretty sure I've seen it done in other magazines—many, many other magazines—for about as long as I've been looking at them."

"I'll work up something else."

2

"A man vomiting into an airline vomit bag."

"We just did a burrito vomiting."

"Right. But that was a food item vomiting. This is a human vomiting. We're taking the essence of the burrito vomiting idea and applying it in a way that breathes new life into it, while at the same time creating a visual dialogue between the two very distinct vomiting executions."

"Let's do the airline safety card."

3

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Opening Remarks

China's Capital Flight

By Peter Coy

Money is pouring out of China as rapidly as it once poured in. That's a dilemma for Xi Jinping

PHOTO ILLUSTRATION BY 731; PHOTOS: GETTY IMAGES (1); HAINAN AIRLINES (1)

You don't need to be a finance expert to know that something's wrong when an interest rate reaches almost 70 percent. With China's growth outlook darkening and capital flowing out of the country, speculators have been betting heavily against the yuan. The People's Bank of China effectively declared war on them in early January, directing state banks to buy large sums of the currency in Hong Kong to support its value and burn the short sellers. With the yuan suddenly scarce in Hong Kong, the annualized cost of borrowing it overnight there hit 66.82 percent on Jan. 12—more than 10 times the usual interest rate. (It receded to 8 percent the next day.) Michael Every, head of financial markets research at Rabobank Group, called the rate spike "murderous" and predicted that things wouldn't end well for Chinese authorities. Central banks "usually win a round like this, but lose in the end," he told Bloomberg.

China's central bank isn't freestyling. It takes its instructions from the government, which means President Xi Jinping. Xi has shrewdly consolidated power since his ascension in 2012, but he seems befuddled by free markets, at times allowing them to operate and at times trying to throttle them—as with the circuit breakers that have failed to arrest the slide in stock prices (page 38).

One of the big questions for the global economy in 2016 is what Xi will do next to stop the flight of capital, which threatens to sap funds from China when growth is already weak. One option is to lure money back by making the country more inviting to both Chinese and foreign investors. That would involve decontrolling interest rates and halting directed lending to heavily indebted state-owned enterprises and local governments. But doing so would require loosening the Communist Party's control over the economy and harm some

powerful domestic constituencies, like long-favored companies and provincial chiefs. So the temptation to amp up command-and-control will be great. True, a clampdown would jeopardize China's ambition to become an equal of the U.S. in global finance. But it would insulate China from the ungovernable swings of the global financial markets, which investor George Soros once memorably said are more a wrecking ball than a pendulum.

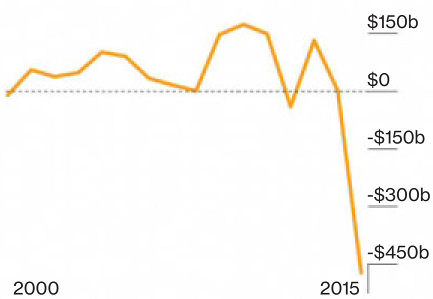
Some China watchers say the question of Xi's direction is already being answered. "China will become increasingly closed to the rest of the world," predicts Alicia Garcia-Herrero, chief economist for Asia and the Pacific at Natixis Asia, a unit of Groupe BPCE, France's second-largest banking company. "Xi Jinping's mindset is one in which China is at the center of the world's economy but not necessarily open to the rest of the world, or at least not vulnerable to it."

Xi seems to realize that he paid a high price for the honor of having the Chinese yuan included, starting this October, in the International Monetary Fund's basket of reserve currencies along with the dollar, the euro, the yen, and the British pound. To be included in the basket, China had to demonstrate that the yuan was "freely usable." That forced it to lower some investment barriers—enabling the capital flight now bedeviling the leadership. The Institute of International Finance estimated in October that net capital flows out of China would reach $478 billion in 2015. New estimates due this month could show even larger outflows, the IIF says.

It's worth taking a close look at what "capital flight" really means for China. Capital flows out of the country aren't necessarily bad; they're simply the mirror image of its trade surplus. Whenever China chooses to use a dollar, euro, pound, or ringgit earned from exports to buy a foreign asset, it's sending capital abroad. Many foreign acquisitions strengthen the country, economically and politically.

The problem now is that more money wants to get out of the country than wants to get in. Here's the math: Last year, the IIF estimates, China had a little more than $250 billion coming in from the surplus on its current account, the broadest measure of trade. It got an additional $70 billion or so in net capital from nonresidents, including Chinese companies' overseas affiliates. But those inflows were swamped by a record $550 billion in net outflows by individuals and companies inside China.

Private Capital Flows



2014 AND 2015 ARE ESTIMATES AS OF OCT. 2015
DATA: INSTITUTE OF INTERNATIONAL FINANCE

Who stashed all that money abroad? The Bank for International Settlements attempted to answer that question in its *Quarterly Review* in September using the example of a hypothetical Chinese multinational. During the boom years, BIS economist Robert McCauley wrote, such a company made money by borrowing at near-zero rates in the U.S. and Europe, converting the money to yuan, and investing in China at higher yields. Now, he wrote, it was reversing course: borrowing more in yuan and holding more money in foreign currencies.

That's the dynamic the government is trying to overcome with its yuan-buying. The IIF projected in October that the government would need to sell off more than $220 billion of its reserves last year to meet the demand for foreign currency. The actual number was probably closer to half a trillion. The nation's stockpile of foreign exchange reserves has dwindled to about $3.3 trillion. The cushion is shrinking. "Considering China's foreign debt, trade, and exchange rate management, it needs around $3 trillion in foreign exchange reserves to be comfortable," says Hao Hong, chief China strategist at Bocom International Holdings.

What Xi is running up against is what international economists call the trilemma, or the impossible trinity. It says that a country can't have all three of the following things at once: a flexible monetary policy, free flows of capital, and a fixed exchange rate. They fight one another. As soon as China started allowing free (or at least freer) flows of capital, it was inevitable that it would have to give up on one of the other two objectives. If it wanted to keep the yuan from falling, it would have to raise interest rates higher than is good for the domestic economy, essentially giving up on setting an appropriate monetary policy. Or, if it wanted to set interest rates as it pleased, it would have to allow the yuan to sink.

"It really is a puzzle," says Steven Wei Ho, a Columbia University economist. "We can only speculate," he adds, which option the leadership will choose. To University of Macau economist Vinh Dang, the answer is obvious: Because flexible monetary policy is essential and China is too big to wall itself off from the world, "exchange rate control must be given up," he wrote in an e-mail.

Judging from China's stop-and-go policies, its leaders haven't completely wrapped their heads around the idea that they must make a choice. They still want all three parts of the impossible trinity. Calls for a large depreciation are "ridiculous," Han Jun, the deputy director of China's office of the central leading group on financial and economic affairs, said on Jan. 11 at a briefing in New York.

It can't be easy for Xi to suffer the indignity of losing a fight against the world's financial markets. That's one reason to think he'll try to escape the trilemma by restoring at least some controls on capital. Garcia-Herrero, the economist for Natixis, predicts that permission to send or keep money abroad will be doled out more stingily in the future. The One Belt, One Road initiative to make China a hub of Asian commerce should have no trouble getting financing, she says, but an investment that doesn't obviously serve the national interest could be rejected. Chinese authorities will remain open to investing or extending credit outside the country when it's fully under their control, she predicts. An example would be the nascent "panda bond" market, which allows foreigners to borrow money in yuan inside China.

Kevin Yan, an analyst at Stratfor, a geopolitical intelligence firm based in Austin, agrees with Garcia-Herrero that the short-term trend is toward closing China off from the world, but he's more optimistic about the long term. "It'll be opening and closing, opening and closing, but slowly moving in a positive direction, probably over the next 5 to 10 years," Yan says.

The worst thing China's leaders could do now would be to fall back on the tired old trick of supporting employment by building roads, bridges, and apartments (page 16). Gunther Schnabl, a professor at the University of Leipzig, says that lax lending merely keeps zombie enterprises on their feet: "If you do not have a hard budget constraint, you do not have an incentive to put forward dynamic, innovative investment." Judging from the amount of capital flight that China is experiencing, a lot of people in the Middle Kingdom are worried about precisely that. Ⓑ —*With Enda Curran and James Regan*

To read Faye Flam on new dietary guidelines and Edward Niedermeyer on the Detroit Auto Show, go to
Bloomberggview.com

Poland's Slippery Economic Slope

The ruling party is veering toward creating a central bank beholden to the government


Duda

In the two months since it won an absolute majority in Parliament, Poland's Law and Justice Party (PiS) has seemed intent on achieving something close to absolute power.

The new government annulled its predecessor's appointments to the country's highest court, put in five of its own appointees, then passed a law to curb the court's powers. Complaining of media bias, it fired the management of Poland's state broadcasters, weakened the media regulator, and named a former party campaign manager to run public television. Another PiS stalwart has been tapped to lead the intelligence services. These and other moves have been strongly criticized in Europe. In Poland they've sparked protests and eroded public support for the party.

Yet the new rulers' most alarming changes may be ahead—because they're preparing to retool Poland's economic policy. Eight of the 10 members of the central bank's monetary policy council will soon reach the end of their terms. Parliament will name six replacements, and the new PiS-supported president, Andrzej Duda, will appoint the other two. PiS has made it clear it wants a more government-friendly central bank, one that's more willing to lower interest rates—something that Marek Belka, the current bank governor, says isn't needed. (Belka's term ends in June.)

This could be a problem, especially if the government follows through on promises to increase spending. It has proposed, among other things, to provide a 500 zloty ($125) monthly child subsidy for poorer households, to lower the retirement age, to raise tax-free income thresholds, and to boost the minimum wage. It's estimated the child subsidy program alone will cost 19 billion zlotys in 2016.

The danger is that PiS will want to pay for its populist pledges by borrowing—and will count on the central bank to pave the way by lowering interest rates. It would be a double shame, because Poland's economy still needs steady, competent management.

The economy has certain strengths after years of growth, including sturdy trading relationships and a deep bench of international investors. But living standards remain well below the European average, parts of the country haven't reaped the benefits of growth, and labor markets remain too inflexible. Poland has one of Europe's fastest-aging populations, putting a strain on social services. While gross domestic product is growing—officially, at a rate of about 3.5 percent in 2015—a weak currency makes this growth appear stronger than it really is.

Poland's problems are structural, not of a monetary nature, so the government shouldn't lean on the central bank to solve them. But its aggressive moves to dominate the constitutional court and the media have made investors worry that it might.

In Mexico, a Soda Tax Success Story

A victory in the war against obesity and attendant diseases is worth emulating

One of the world's highest soda taxes appears to be working. After just one year, purchases of sugary drinks in Mexico are down 12 percent, a new study shows. Even better, the biggest reductions have occurred among the poor, who can least afford health care. Sugary drinks are a primary driver of obesity, and Mexico's obesity rate is the second-highest in the developed world, trailing only that of the U.S. Other governments—including America's—should be encouraged to impose similar taxes and take other strong actions to curb soda drinking.

Obesity is becoming a global epidemic, and it's catching governments flat-footed. Some have encouraged children to exercise and eat healthy foods—worthwhile advice. Others have conducted weight-loss competitions. Yet the epidemic worsens. Without bolder actions, the spread of diabetes and other weight-related diseases will continue.

The results of the Mexico study (which was funded in part by Bloomberg Philanthropies) are encouraging but not surprising. Raising the price of alcohol and tobacco through so-called sin taxes, which almost all governments do, has proved to be an effective way to discourage their use. More study of Mexico's tax is still needed, particularly about what impact, if any, the decline in soda sales has had on obesity. But the initial evidence should lead others to seriously consider adopting similar taxes.

Sugary drinks should also be eliminated from the federal food stamps program. Every dollar a family spends on cola is a dollar that can't be spent on carrots. Sugary drinks are the very definition of empty calories, providing no sustenance and doing nothing to alleviate hunger. A taxpayer-financed nutrition program shouldn't leave people both hungry and sick. People need to eat more peas and broccoli and consume far less sugar, and they'll have more success doing that if sugary drinks are taxed rather than subsidized. B

Ch-ch-changes

▶ **Argentina's new president, unlike the old one, wants to talk**

▶ **Drawing "a line between what's true and what's a lie"**

From a rundown government building in Buenos Aires, a reserved economist named Jorge Todesca is leading a glasnost of sorts in Argentina. A few weeks after winning November elections, President Mauricio Macri—a wealthy businessman and former Buenos Aires mayor—put Todesca in charge of the national statistics institute. Macri cleared Todesca and his ministers to talk freely about the nation's economic data and just about everything else.

That may seem like the norm in other democracies, but not Argentina. The government of Macri's predecessor, Cristina Fernández de Kirchner, was suspected of manipulating statistics so much that in 2013 Argentina became the first nation to be censured by the International Monetary Fund for inaccurate data. The then-finance minister called the censure "baseless." Now, Todesca openly discusses recovering the ability to produce believable statistics: "This institution and others draw a line between what's true and what's a lie." Fernández didn't respond to requests for comment.

Macri, who was born into a wealthy family and was once president of the wildly popular Boca Juniors soccer club, won a narrow runoff victory on promises to attack corruption and drug trafficking, erase poverty, and scrap heavy state controls over the economy. Since taking office on Dec. 10, he's eliminated currency controls, slashed export taxes, and sacked no-show state workers.

In mid-January, Macri sent his top finance officials to New York for talks with creditors demanding payment for bonds the nation defaulted on in 2001. A settlement would let the government borrow from foreign investors for the first time in a decade. "That transparency is going to be critical," says David Tawil, co-founder of distressed-asset fund Maglan Capital in New York. Under Macri so far, officials at all levels are talking about inflation, taxes, exchange rates, and harvests.

Fernández, a lifelong member of the populist Peronist movement, seized control of vast sections of the economy, including the energy and media industries. She used welfare, generous state subsidies, taxes, trade protection, and currency controls to try to fuel growth. She left behind an economy in tatters, with inflation upwards of 25 percent, two years of stagnation, dwindling reserves, and escalating budget deficits.

Fernández's ministers rarely commented on anything in public. The fear of speaking up touched all levels of society, business, and government, says José Nun, who was secretary of culture under Fernández and Néstor Kirchner, Fernández's late husband and predecessor. "You have to understand that Cristina was above all a populist, and populists believe they are the sole representatives of the people's desire," says Nun, who quit Fernández's government to join the opposition and now runs the doctorate program in sociology at San Martín National University.

In her eight years in office, Fernández communicated via prolific tweeting, pronouncements on national television, and pro-government programming on state media—but held very few news conferences. Marcos Peña, Macri's 38-year-old cabinet chief, says his boss is already radically different. Macri has called two news conferences in his first month. He's also planning to attend the annual gathering of the economic elite in Davos, Switzerland, something Fernández never did.

PHOTO ILLUSTRATION BY 731; KIRCHNER: GABRIEL ROSSI/LATINCONTENT/GETTY IMAGES; MACRI: ADRIANO MACHADO/EFE/ZUMA PRESS

"Uniting Argentines has a lot to do with your word," says Peña. "There has been almost a mega-devaluation of the value of the word of the state or of politicians, and that's one of the biggest problems this country has," he says, sitting in his sprawling office in the presidential palace, known as the Pink House.

Macri is trying to tone down a quarrel Fernández started. She clashed with farmers across the pampa, a Texas-size region of fertile farmland. She tried to jack up taxes on farm exports to make farmers sell more grain domestically. They faced her down with strikes and roadblocks, leading to food shortages. For years, she branded farmers as hoarders and speculators. "We never got anyone in her government to meet with us," says Gabriel De Raedemaeker, whose family has 9,400 acres of soy, corn, wheat, and ranchland near Cordoba in the northern pampa. Says Raedemaeker, who's vice president of a regional farming association: "You cannot imagine how exhausting that bellicose rhetoric was."

Raedemaeker says he knows how the government muzzled critics. "Like clockwork, I would get a notice from the tax agency right after being quoted in the media," he says. "And I had to go down there with my accountant and prove my innocence." Ricardo Echegaray, who ran the tax agency under Fernández, declined to comment.

Macri has drawn criticism for bypassing congress via a flurry of decrees, including appointing two judges to the supreme court. "Decrees can be used, but not like this," says Daniel Sabsay, a lawyer and an expert on Argentina's constitution. "It comes close to a violation of the separation of powers."

Macri doesn't control congress, and he'll need to form alliances with the opposition—including former Fernández allies—if he wants to govern, says Senator Juan Manuel Abal Medina, Fernández's former cabinet chief.

"We think that some of these changes are not right," says Abal Medina, referring to the currency devaluation and other initiatives by Macri. "They might be good for the financial markets in the short term, but over time they will erode advances for the poor that we worked hard to achieve." Peronists control the senate and form the largest opposition group in the lower house.

Macri's challenges become clear in the dimly lit offices of the statistics institute. He has declared a "statistics emergency," giving Todesca the freedom to make radical changes. Todesca says it will take months just to get a reliable read on inflation—and he has opposition. Among the institute's 1,700 workers are 200 delegates from a fiercely pro-Fernández union who are trying to block his reforms.

Todesca is used to getting heat. In 2011 the commerce secretariat fined the economist 500,000 pesos ($37,000) for publishing his own inflation index. The fine was overturned in court. "I think that's why the president chose me, because I tried to speak the truth about economic statistics and was punished for it," Todesca says. "It's a complex task, but worth it." *—Michael Smith and Carolina Millán, with Pablo González, Dan Cancel, and Charlie Devereux*

The bottom line President Macri has inaugurated a new kind of openness and reform in Argentina, but he still has to deal with opposition in congress.

Labor

Layoffs Loom in China As Growth Slows

▶ **The number of protests doubles, and most industries are affected**

▶ **"Companies have been delaying wages and cutting the workweek"**

While most of the world has fixated on the plunging Shanghai and Shenzhen stock exchanges and Beijing's missteps managing the currency, China's labor market has become increasingly fragile. As wage arrears and layoffs ▶

grow, unrest in factories and on construction sites is spreading.

Worker protests and demonstrations doubled last year, to 2,774, with December's total of more than 400 such incidents, setting a monthly record. The protests come as China's slower growth crimps profits and concerns about poor policymaking sap investor confidence. "The increase in strikes and protests began last August around the time of the yuan devaluation and subsequent stock market crash and continued to build during the final quarter of the year, as the economy has showed little sign of improvement," says Geoffrey Crothall, communications director at the Hong Kong-based workers' advocacy organization China Labour Bulletin.

That's worrisome for China's Communist Party, which came to power in 1949 claiming to represent the working masses. In a sign of its nervousness, Beijing on Jan. 8 formally arrested four labor organizers in Guangdong, amid a broad crackdown on rights activists. "The situation is not so good these days," Zhang Zhiru, a Shenzhen-based labor campaigner, said in a text message. "It is not convenient to accept interviews from the foreign media."

> **"I am not satisfied with my salary. But everywhere's pretty much the same."**
> **—*anonymous 30-year-old Chinese toy factory employee***

The government's official unemployment rate for urban workers is fiction: It's remained largely unchanged at around 4 percent even when China's economy has dipped significantly in the past, as during the global financial crisis. Still, most outside observers estimate the real figure may be a couple of percentage points higher (the Conference Board's China Center for Economics and Business puts it at about 6 percent). Wage growth has been outpacing gross domestic product growth in recent years, and 10.7 million urban jobs were created in the first nine months of last year, surpassing the official full-year target of 10 million, according to the Ministry of Human Resources and Social Security.

Cash-pressed companies in construction, manufacturing, mining, and services are delaying paying their workers, which is the No. 1 cause of labor strife and a likely precursor to staff reductions, says Crothall. "Companies have been delaying wages and cutting the workweek. They have tried these different measures to keep people employed. But now we expect greater outright layoffs," says Beijing-based Andrew Polk, senior economist at the Conference Board's China Center.

"This year I expect it will be even more difficult to find work," says one 30-year-old toy factory worker who hails from Hunan province. (He asked that his name not be used, citing the sensitivity of the labor situation.) "I am not satisfied with my salary. But everywhere's pretty much the same."

According to Chinese surveys of purchasing managers, companies have been reducing staff for at least the past 11 months. A separate private poll by Markit Economics and Caixin, a financial information media company, is similarly grim, with services showing their worst overall performance in 17 months in December.

Layoffs have been particularly high among export-oriented manufacturers in southern China's Pearl River Delta. A survey last August of 570 companies in Guangdong by the Hong Kong University of Science and Technology and Beijing's Tsinghua University showed companies had reduced their workforces by an average of 3.5 percent from 2013 to 2014, while low-skilled workers had been cut by 5 percent, says Albert Park, director of the HKUST's Institute for Emerging Market Studies. Monthly wages for workers grew more than 10 percent annually in 2013 and 2014. They grew less than 2 percent through the first half of last year.

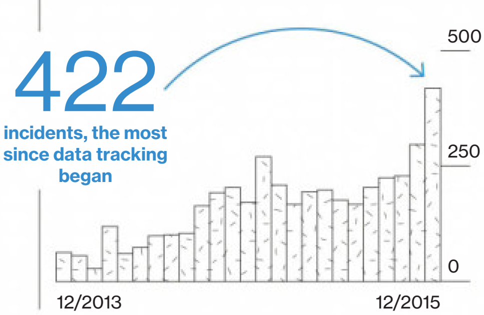
Multinationals operating in China's big cities are trying to control labor costs. About one-third of such companies in an October survey said they planned to add staff in 2016. That was the lowest rate recorded since early 2009, during the global financial crisis, says Elley Cao, a principal at human resources consultants Mercer in Shanghai. Foreign companies said they plan to raise salaries on average by 6.9 percent this year, the smallest increase since 2009. Says Cao: "This will be the trend for the next few years."

Layoffs in China's resource and heavy industries, suffering from overcapacity and red ink, are expected to be particularly large. Officials have said cutting excess production is a priority, in part to help reduce hazardous smog. "China should put unyielding effort into restructuring by eliminating outdated capacity and forbidding the construction of new capacity," Premier Li Keqiang said on Jan. 4 in Shanxi, one of the top coal-producing provinces, the official Xinhua News Agency reported. The government should take "a combination of measures" to deal with overcapacity and ensure the "well-being of laid-off workers," Li said, without specifying how.

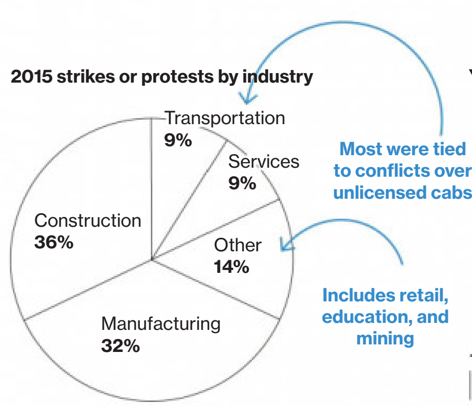
The downsizing in heavy industry

Worker Unrest on the Rise in China

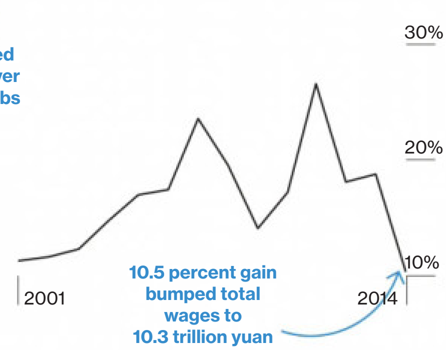
Strikes and protests, monthly



2015 strikes or protests by industry



Yearly growth in total wages



MICHELE LIMINA/BLOOMBERG; DATA: CHINA LABOUR BULLETIN; NATIONAL BUREAU OF STATISTICS OF CHINA

and mining has already begun. The coal industry has shed 890,000 jobs since 2013, equal to all the new jobs in coal created "in the stimulus-driven boom since 2007," writes Ernan Cui, a Beijing-based analyst at China researcher Gavekal Dragonomics, in a Jan. 6 note. The steel industry, also suffering from overcapacity, has dropped 550,000 workers over the same period. "It is not implausible that these two sectors could lay off 1 million workers in 2016," Cui writes.

Even as the service industry grows, it's failing to create many higher-end, better-paid jobs, like those in finance. Instead, says Park, it's generating positions such as waiters, cooks, and dishwashers in restaurants. China Labour Bulletin's Crothall says, "The jobs that are becoming available in the sector are not necessarily that much better in terms of pay and conditions, as former factory workers were getting. Indeed, they may often get paid less and be working longer hours."
—*Dexter Roberts*

The bottom line This year is shaping up to be a tough one for Chinese labor, as employers seek to reduce costs and pare away excess capacity.

Digits

-10.1%

Drop in **U.S. railway cargo** for the week ended Dec. 26, vs. the same period a year earlier. Bank of America analysts say sustained drops in cargo often precede recession.

Currency

Switzerland Weathers The Superstrong Franc

▶ **The central bank spent billions defending the exchange rate cap**

▶ **"Delaying ... would have led to a much worse outcome"**

It was in a small, wood-paneled boardroom overlooking Lake Zurich that Thomas Jordan and his colleagues at the Swiss National Bank made a decision that caught global markets unawares, infuriated Swiss industrial leaders, and tipped the economy dangerously close to recession.

Sitting in that same room a year later, Jordan, president of the SNB, the nation's central bank, is calm as he looks back on his call to scrap a cap of 1.20 francs to the euro. The bank had kept it in place since 2011 in an attempt to control the Swiss currency's runaway strength and avoid further damage to the country's exports, which make up more than 60 percent of gross domestic product. "We have no regrets because we believe it was exactly the right decision at exactly the right time," he says of the momentous step, announced at 10:30 a.m. Central European Time on Jan. 15, 2015. "Sometimes you have to take tough decisions."

The exchange rate cap was meant to keep the franc from rocketing in value as outside investors poured into the Swiss currency, a traditional haven when the world—and especially Europe—is in financial turmoil. Yet the demand for francs and the weakness of the euro had become too much for the Swiss central bank to bear. A year ago, Swiss officials were spending billions of francs buying euros as the prospect of quantitative easing by the European Central Bank and further weakness in the euro intensified the upward pressure on the franc.

Jordan

From about 1.60 per euro shortly before Lehman Brothers collapsed in 2008, the currency went on an unstoppable appreciation, almost reaching parity with the euro before the ceiling was introduced in September 2011. The three-year struggle to maintain the cap resulted in a massive buildup in foreign-currency reserves. With pressure on its cornerstone policy continuing to mount, the SNB announced a 0.25 percent charge on deposits banks hold with the central bank.

In January 2015, Jordan, along with fellow policymakers Jean-Pierre Danthine and Fritz Zurbrügg, decided to scrap the exchange rate limit in one quick move, like ripping off a bandage. "Delaying the decision would have led to a much worse outcome for the economy," says Jordan. "The appreciation of the franc would've happened anyway." At the same time, the SNB announced an increase to 0.75 percent in the deposit charge.

Sure enough, within minutes of the cap being removed last year, the franc rose as much as 41 percent against the euro. When the news hit, at the peak of franc trading, investors were taken by surprise, since the central bank had affirmed the policy just days earlier.

Banks racked up millions of dollars in trading losses, and a New Zealand-based broker was forced to shut down. Swiss industry was taken by surprise, too. **Swatch Group** Chief Executive Officer Nick Hayek was among those who reacted, saying the SNB had unleashed a "tsunami." He later described the central bank as "weak" and lacking leadership. Among economists, assessments of the SNB's action ran the gamut from "brave" to "one of the worst central bank decisions ever."

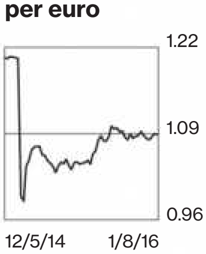
Swiss economic growth did suffer, with the surging currency making exports still more expensive in the euro zone, its largest market. Exports to the euro area dropped 8 percent in the first nine months of the year. The ▶

economy shrank 0.3 percent in the three months through March 2015. Yet it managed to eke out growth in the subsequent three months, skirting a recession, with companies clamping down on costs and boosting efficiency. Unemployment hasn't posted a big rise and, with the franc having weakened slightly against the euro in recent months to about 1.09, Jordan sees growth accelerating to about 1.5 percent this year from just under 1 percent in 2015. The SNB president says the franc is still overvalued.

Although Switzerland may be famous for skiing, watches, and cheese, its growth has historically been driven by a mix of financial services, notably private banking, a pharmaceutical industry that includes **Roche Holding** and **Novartis**, and the manufacture of high-quality, technically sophisticated goods. Fortunately for Switzerland, some of these high-end industries are less affected by the strength of the currency. "Given the strong appreciation of the Swiss franc, the economy is doing relatively well," Jordan says, though the situation remains "a challenge for many, many firms."

The central bank chief, who studied at the University of Bern and attended Harvard, is very aware of the continuing battle he faces. He cites everything from weakening in the economies of China and Brazil to the price of oil and even Britain's referendum on European Union membership as potential sources of trouble. Although it's still much lower than in neighboring France or Italy, the jobless rate rose throughout 2015, to a five-year high of 3.4 percent in December; that month, there were nearly 8 percent more job seekers than at the end of 2014.

Swiss francs per euro



The strong franc also dampens price pressures by making imports cheaper. Consumer prices tumbled 1.1 percent last year, the most since 1950.

Jordan says the negative deposit rate, still at 0.75 percent, and the SNB's proven willingness to sell francs even after removing the cap will help weaken the Swiss currency over time. That can only help the economy, as would healthier growth in the euro region. Says Jordan: "Given the difficult situation we're in, the main focus of the board is on monetary conditions and to see how we can steer Switzerland through this very, very stormy weather."

—*Catherine Bosley, Fergal O'Brien, and Jan Schwalbe*

The bottom line A year ago economists were predicting the worst after Switzerland scrapped the currency cap. Now the economy is growing.

Agriculture

The Fat Years End For American Farmers

▶ **U.S. agriculture struggles with crop surpluses and a strong dollar**

▶ **"Low rates pushed ag markets and farmland beyond true value"**

The American farm boom is all but over, and farmers will have to begin tightening their belts. Land values are down from all-time highs. Global surpluses have pushed corn and soybean prices below the cost of production. The amount of agricultural debt relative to income has ballooned to its highest level in three decades, just as the Federal Reserve raised interest rates for the first time since 2006.

While many growers remain profitable, the global commodity slump is increasing pressure on a Midwest economy that was largely shielded from the worst of the financial crisis by high crop prices and increasing land values. "The farm economy had a near-perfect five or six years," built on record U.S. demand for corn-based ethanol in fuel, surging food purchases in Asia, and near-zero-percent interest rates that helped spur land investment, says Brent Gloy, an agricultural economist at Purdue University. With the oil slump eroding ethanol margins, as refiners use less of the additive, and a strong dollar reducing U.S. exports, the Fed's decision last month to start raising borrowing costs "means there's nothing left of the boom," Gloy says. At the same time, sales are dropping for the likes of tractor maker **Deere** and seed supplier **Monsanto**.

Farm income tumbled in 2015 to $55.9 billion, down 55 percent from a record $123.3 billion in 2013, estimates the U.S. Department of Agriculture. Farmers' debt in 2015 was 6.6 times larger than their income, up from 3.8 times a year earlier. That's the highest ratio since 1984, when farm foreclosures were the most numerous since the Great Depression, government data show. The debt-to-income ratio is "like a warning light that goes on in your car," says Allen Featherstone, an agricultural economist at Kansas State University. "You better pay attention."

The U.S. crop glut may be worsening. Inventories of corn, wheat, and soybeans on Dec. 1 were bigger than they were a year earlier, the USDA said in a January report, as farmers kept their bins full waiting for better prices. A separate government report forecast record global wheat production. Even as surpluses keep prices low, demand for American farm exports is dropping. The strong dollar makes supplies from countries including Brazil and Ukraine cheaper for importers. With U.S. exports at a six-year low and imports up, the nation's trade surplus in agriculture will slump to $9.5 billion in 2016, down 78 percent from a record $43.1 billion in 2014, USDA data show.

Compounding the strain are higher borrowing costs, which make it more difficult for farmers to finance operations or purchase land and equipment. The Fed raised interest rates by 0.25 percentage points and signaled its intent to make further increases. Cheap loans and high crop prices had helped fuel a boom in the price of U.S. farmland, with values doubling over a decade.

Maybe it was too much help. "Low rates pushed ag markets and farmland beyond true value," says Jim Farrell, president of Omaha-based

ILLUSTRATION BY BRAULIO AMADO

Farmers National**, which manages more than 5,000 farms and ranches in 24 states. Rising interest rates could reduce farmland values by as much as 15 percent within two years, he says. Rural bankers are getting more bearish, according to the Rural Mainstreet Index created by Creighton University from a survey that measures attitudes of lenders across 10 Midwestern states. Its gauge of farm and ranch land prices sank to 28.8 in December, the 25th straight month below a growth-neutral rating of 50.

Could land then become more affordable for farmers thinking of expanding? No such luck. "Land prices are down very little relative to the drop in farm income," says Dan Kowalski, director of research at CoBank, a cooperative member of the Farm Credit System in Greenwood Village, Colo. "As the liquidity situation for farmers changes, buying farmland will become a more difficult decision."

Because of the fat years, farmers probably won't see the same kind of economic crisis they did in the 1980s, says Paul Pittman, chief executive officer of Westminster, Colo.-based **Farmland Partners**, a real estate fund that owns about 108,000 acres across the U.S. Most are in better shape financially after years of high prices, and the interest rate increases so far are relatively small.

For Anthony Bush, who farms more than 1,400 acres of corn, soybeans, and wheat outside Mount Gilead, Ohio, higher interest rates are just another sign that the mood is shifting. "I look for a period of pretty tough times," says Bush. "I need to borrow money in the spring to cover the costs I pay off in the fall, so when you're buying your seeds, your fertilizer, you have to take on your debt all at once." Even with those increased costs, he expects farming to remain viable. "If you want to stick in this business, you have to be an eternal optimist," Bush says. "We may not have cheap interest rates. But we'll still have to eat." —*Alan Bjerga and Jeff Wilson*

The bottom line This year will test the mettle of U.S. farmers as the boom that drove land values and crop prices sky-high comes to an end.

Edited by Christopher Power
Bloomberg.com

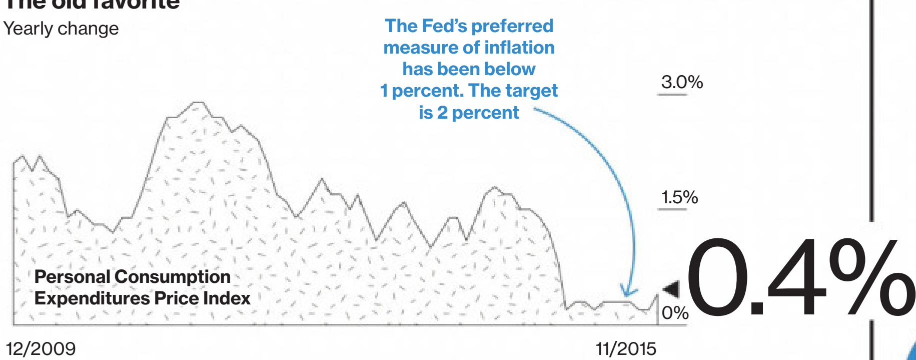
Inflation

By Jeanna Smialek and Mark Glassman

The Fed's New Approach

In 2013, Janet Yellen widened the Federal Reserve's view of the labor market by outlining a new dashboard of indicators to help guide policy. The minutes from its latest meeting suggest the Fed could also take a broad approach when it comes to assessing inflation.

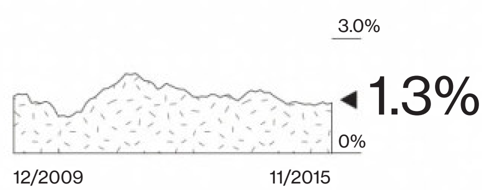
The old favorite
Yearly change



Alternative gauges in the Fed's sights
Yearly change

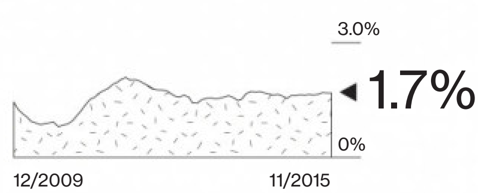
How's it different?

Core Personal Consumption Expenditures Price Index



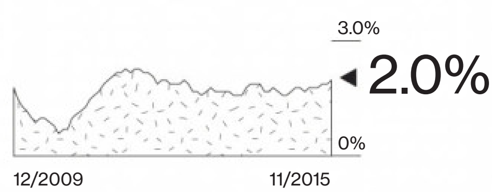
Strips out volatile food and energy prices

Dallas Fed's Trimmed Mean PCE Index



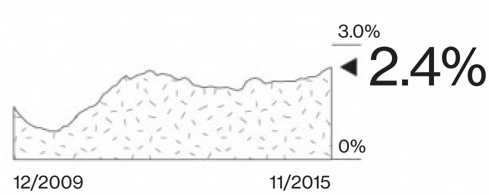
Throws out the most volatile components in any given month

Bureau of Labor Statistics' Core Consumer Price Index



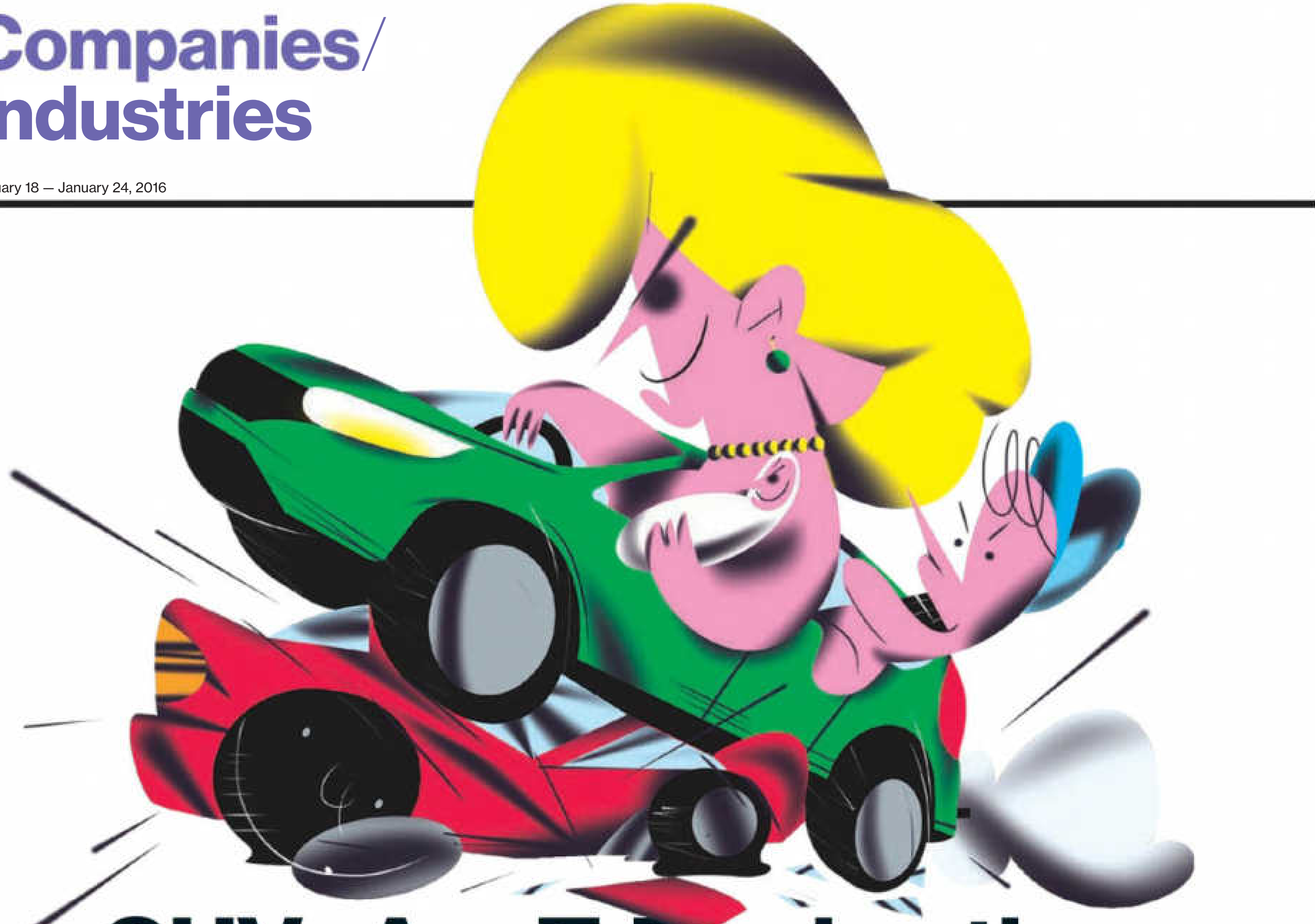
Tracks what urban consumers pay for a basket of goods; food and energy are stripped out here, too

Atlanta Fed's Sticky-Price CPI



Focuses on the prices of items that are slower to change with economic conditions

DATA: BUREAU OF ECONOMIC ANALYSIS; BUREAU OF LABOR STATISTICS; FEDERAL RESERVE BANKS OF ATLANTA AND DALLAS



SUVs Are T-Boning the Family Sedan

▶ **Small sport-utes are poised to surpass the Camry and Accord as America's favorite family ride**

▶ **"There's really been a shift in taste across the board"**

Craig and Tiffany Sollman of Greenville, S.C., are the kind of car buyers America's sedan makers once could count on: He's 41, she's 33, and their baby boy, Micah, just turned 3 months old. The Sollmans, though, never really gave much thought to a sedan before plunking down $24,000 recently for a tan Toyota RAV4 sport-utility vehicle. "The ride is great, it gets good gas mileage, and there's enough room in the back for baby accessories," Craig said in an e-mail, because he and his wife are too busy with Micah to chat on the phone. "My wife's best friend delivered a daughter within a month of us, and they also went out and got a Toyota RAV4."

Thanks to drivers like the Sollmans, the family sedan's decades of dominance—from the Chevy Bel Air in the 1950s through the Toyota Camry of today—are coming to an end. Compact SUVs including the RAV4, Honda CR-V, and Ford Escape are the new family car of choice. Small sport-utes started outselling the Camry, Honda Accord, and other midsize sedans last summer; this year they'll overtake traditional cars, selling about 3.1 million vs. 3 million, to command the largest share of the U.S. auto market for the first time, according to researcher LMC Automotive.

"Sedans used to be the bread-and-butter segment, but now compact SUVs have become the go-to vehicle," says Jeff Schuster, senior vice president for forecasting at LMC. "There's really been a shift in taste across the board."

Driving this dramatic departure is a society that likes to ride high and live large. Modern SUVs bear little resemblance to the rugged roustabouts of yore. They don't guzzle: A CR-V gets 33 miles per gallon on the highway. They don't rattle your bones: Many are built on smooth-riding car chassis, not truck frames. And they're affordable: The average price is $26,400, just $700 more than a midsize car, according to automotive pricing website Edmunds.com.

They're also more broadly appealing than the small SUVs **Toyota Motor** and **Honda Motor** introduced in the late

ILLUSTRATION BY BRAULIO AMADO

1990s. Back then, they were disparaged as "cute-utes," lacking the power and prestige of the big, testosterone-fueled Hummers and Navigators Detroit was churning out.

Today, much like flip phones begat smartphones, cute-utes have morphed into stylish models packed with the latest safety and infotainment technology. "The compact SUV is very similar to a midsize car, only taller with more flexible cargo capacity," says Jessica Caldwell, a senior analyst for Edmunds.com.

Compact SUVs owe a debt to the humble minivan. The rise of those sliding door-equipped behemoths three decades ago showed there was a better way to haul kids and their gear to school and soccer games than just cramming everybody into the back seat of a Ford Taurus. But for all their utility and respectable fuel efficiency, minivans were saddled with a dowdy mom-mobile image that prevented them from overtaking traditional family sedans. Annual sales of minivans have fallen by half over the past 10 years. Today, compact SUVs—seen as more of a cool kids' conveyance—outsell minivans more than 6 to 1.

> **"Improvements over the last 5 to 10 years have been remarkable. There isn't a big difference now between similarly sized sedans and SUVs."**
> **—*Jeff Schuster, LMC Automotive***

Safety also is a factor. Craig Sollman, who works at the local water utility in Greenville, says his wife feels more secure in their RAV4 because she rides above traffic. "People feel safer when they are up higher and have a better view of the road," says Edmunds.com's Caldwell. "Whether it's true or not, that doesn't matter, because that's the perception."

In this case, reality does match perception: Small SUVs have a rate of 23 driver deaths per 1 million vehicles, compared with 35 for midsize cars, according to an analysis of federal crash data by the Insurance Institute for Highway Safety.

The SUVs have a weight advantage, "and more weight is protective in crashes," says Russ Rader, a spokesman at the IIHS. "There's also a safety advantage in sitting up higher in the vehicle because that puts a driver a little above the point of impact in crashes."

These attributes have given compact SUVs cross-generational appeal. Baby boomers, who spurred the SUV craze a quarter-century ago, are moving down from big rigs such as **Ford Motor**'s Explorer and Toyota's Highlander into the smaller models as their children leave the nest. Meanwhile, those children, who "grew up in SUVs," are choosing them as they enter their baby-on-board years, says Bob Carter, Toyota's top U.S. sales executive. "The under-35 millennials are buying 'em up," he says.

To help meet demand, Toyota began importing RAV4s to the U.S. from Japan last year, supplementing the automaker's Canadian factory, which has been operating full tilt. Sales of the model jumped 18 percent in 2015, to 315,412 vehicles, pushing it past Ford's Escape to become America's second-best-selling compact SUV. Carter predicts that within five years the RAV4 will surpass the Camry, which has been the top-selling car in the U.S. for the past 14 years. Honda's CR-V remains the No. 1 compact SUV, with 2015 sales totaling 345,647. It came within 10,000 of topping the Accord sedan, which finished second to the Camry.

Low gasoline prices of about $2 a gallon have helped fuel the latest run on SUVs—and are even encouraging a revival in compact pickups. But analysts say small sport-utes won't need cheap gas to sustain sales. Accident-avoidance gizmos, electronic liftgates, fancy sound systems, and Web and text capabilities coveted by connected consumers have made small SUVs far more customer-friendly than the utilitarian trucks that inspired their creation.

"Improvements over the last 5 to 10 years have been remarkable," LMC's Schuster says. "There isn't a big difference now between similarly sized sedans and SUVs."

Smaller SUVs also have shed their rough-and-ready looks for swoopy styling that borrows more from the sedans they're replacing than the off-roaders they once aspired to be.

"We've moved beyond the boxy, small SUV," says Mark Wakefield, managing director and head of the Americas automotive group at consultant AlixPartners. "It has evolved into a tall car that drives like a car and has almost no sacrifices." *—Keith Naughton*

The bottom line Demand for small SUVs is fast eclipsing that for family sedans, which had been America's most popular car type since the '50s.

Fashion

Nasty Gals ♥ Courtney Love's Style

▶ The online fashion retailer taps into a '90s grunge revival

▶ Girls "can be a little more sexual and rebellious with their style"

"**Nasty Gal** is not a brand for wallflowers," says Sophia Amoruso, founder and owner of the 10-year-old teen fashion label. Which explains the collaboration with rock icon Courtney Love: "She has such a singular style. … She's provocative, she's uninhibited. I would say we're a provocative brand."

The 18-piece "Love, Courtney" collection, a first for the label and musician, goes on sale on Jan. 14 and features '90s grunge-inspired items, including what the first-time designer calls a floaty kimono ($188), bra with a choker ($48), and head-to-toe lace bodysuit ($108)—all drawn from her days as lead singer for the group Hole and as wife and muse of Nirvana frontman Kurt Cobain. "It's modern but slightly nostalgic," Love said on a recent podcast.

The line arrives at a time of renewed interest in '90s styles, from crop tops to high-waisted jeans. Dr. Martens industrial boots are back on the streets, more refined, less chunky. "You see a lot of parallels in what was popular then and what's happening now," says Roseanne Morrison, fashion director at trend forecaster Doneger Group. Love, she says, "epitomizes the '90s," and her line distinguishes Nasty Gal from other brands.

Fashion collaborations help ▶

◀ retailers gain attention. It's a low-risk, low-cost way to spark publicity and sales, says Marshal Cohen, a retail analyst at research firm NPD Group. **H&M** and **Target** found such success with **Alexander Wang** and **Missoni**, among others.

Love 1993

Amoruso's company started as an EBay store, selling vintage finds from labels such as **Louis Vuitton** and **Chanel**. It became a standalone online shop in 2008. In 2012 she hired designers to create a Nasty Gal line. "They've tapped into this idea that young girls and millennials can be a little more sexual and rebellious with their style," says Sarah Owen, editor at retail analysis firm WGSN.

Today, Nasty Gal has 200 employees and two brick-and-mortar stores—in Los Angeles, where it's based, and Santa Monica. It rings up about $100 million in annual sales, according to Amoruso, and has raised $65 million from Index Ventures and former J.C. Penney Chief Executive Officer Ron Johnson.

Nasty Gal 2016 Collection

$128

$110

Fashion e-commerce is a crowded market, with hundreds of startups, from **ModCloth** to **Asos**, selling alongside established retailers H&M and **Forever 21**. Social media has driven Nasty Gal's popularity—that's where the company cultivates its customer. It has 1.9 million followers and counting on **Instagram**, 225,000 on **Twitter**, and 158,000 on **Pinterest**, plus 1.2 million likes on **Facebook**.

Nasty Gal had to cut about 10 percent of its workforce in 2014—typical growing pains for a fashion retailer, according to Steven Dennis, the founder of retail consulting firm SageBerry. "Once you find the easy customers to acquire, who get your point of view, then it starts to get a lot harder to go beyond being a niche business," he says. Nasty Gal declined to comment on the job cuts. It's also fighting four lawsuits brought by former employees who accuse it of disability discrimination and illegal termination of pregnant workers. The company called the pending lawsuits "frivolous and without merit." Last spring, Amoruso said she would focus more on the creative side of the business and promoted Sheree Waterson, a former Lululemon executive, to CEO.

"Our girl loves Courtney and her style," Amoruso says. That type of synergy doesn't come along that often, and Amoruso isn't looking to do too many such deals. "I'd like to be really choosy," she says. —*Kim Bhasin*

The bottom line The teen and young women's fashion brand is hoping to attract new customers with an exclusive deal with a rock icon.

[redacted]

Entertainment

Moviemaking, Without Superheroes

▶ **In an age of blockbuster films, the U.K.'s Working Title aims small**

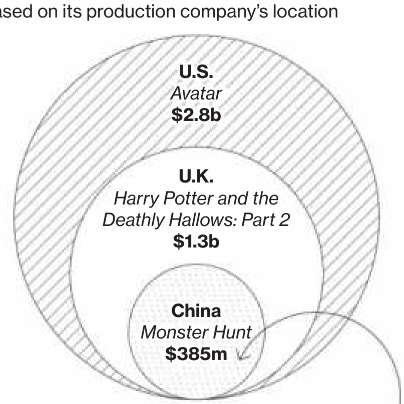
▶ **Making cheaper films "to reduce the risk to an acceptable level"**

As film pitches go, *The Danish Girl*—about a transgender artist in 1920s Copenhagen—should have been a hard sell. Instead, British producers Eric Fellner and Tim Bevan, co-chairmen of **Working Title Films**, thought they'd spotted a rare gem. They quickly greenlighted it in 2014, casting Eddie Redmayne as a repressed husband discovering his true self as a woman.

That was before Caitlyn Jenner thrust the transgender movement into the headlines. It was also before Fellner and Bevan knew their previous film with Redmayne, *The Theory of Everything*, would be a runaway success in 2015. Redmayne won a best actor Oscar for his portrayal of physicist Stephen Hawking in a film that cost $15 million to make and grossed $123 million at the box office. Many critics expect Redmayne to get another Oscar nomination for *The Danish Girl*.

Lights, Camera, *Xíngdòng*

Global box office of a nation's top-grossing film, based on its production company's location



Churning out hits whose appeal isn't immediately obvious has been Working Title's hallmark, beginning with *Four Weddings and a Funeral* in 1994. Unlike Britain's **Heyday Films**, producer of the Harry Potter movies, or **Eon Productions**, the London-based outfit behind the James Bond flicks, Working Title has built its reputation around often-quirky smaller productions with relatively modest budgets. Still, its films, including *Bridget Jones's Diary*, *Notting Hill*, and *Shaun of the Dead*, have taken in more than $6.5 billion at the box office and won 11 Oscars since Fellner and Bevan teamed up in 1992.

Working Title is basically a Hollywood production house in London. Technically, it's a subsidiary of **Comcast**'s Universal Pictures. Yet Fellner and Bevan aren't employees of Universal and run the company independently. That gives Universal first look at financing and distributing films they're working on. If it's not interested, the pair can take films elsewhere.

Fellner calls the arrangement a "hybrid model" that has allowed Working Title to strike occasional deals with Universal rivals, as it did with **Vivendi**'s StudioCanal to finance 2011's *Tinker Tailor Soldier Spy*. It will take a similar tack this year with *Baby Driver*, starring Kevin Spacey and Jon Hamm and written and directed by Edgar Wright, whose zombie farce *Shaun of the Dead* was a surprise hit in 2004. Working Title teamed with **Sony**'s TriStar Pictures and indie studio **Media Rights Capital** on *Baby Driver* after Universal took a pass.

Fellner says the $15 million budget for *The Danish Girl* made it a tolerable gamble when coupled with Universal's distribution muscle. The film so far has grossed $14.5 million and will likely get a boost from the awards season buzz. "If you make the film at a low enough entry price, you can usually find a way to reduce the risk to an acceptable level," he says. "But the idea of 'risk-free' doesn't really exist. The man or woman who thinks they've cracked it is ▶24

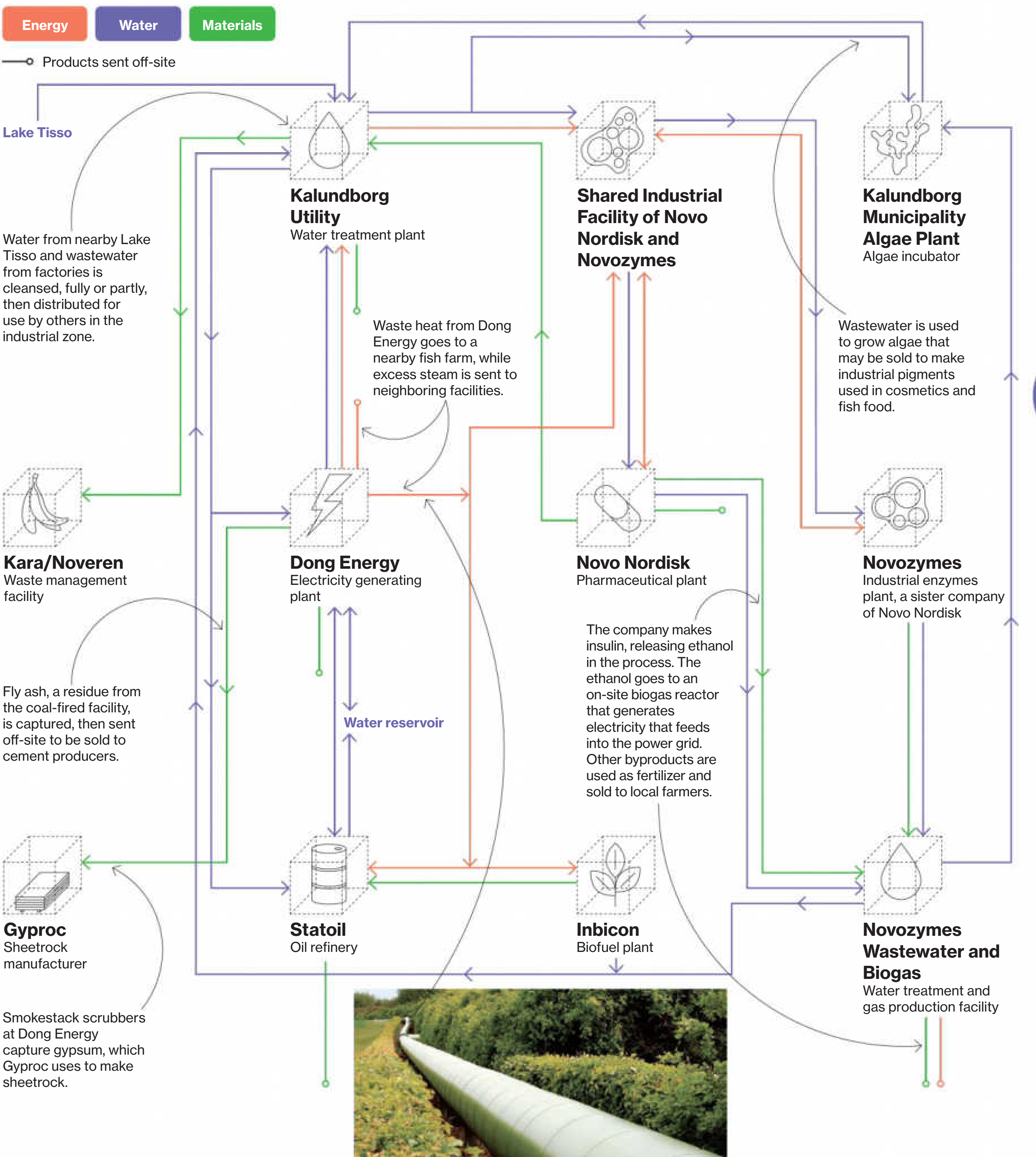
CLOCKWISE FROM TOP LEFT: KEVIN CUMMINS/GETTY IMAGES (1); ILLUSTRATIONS BY 731 (11); COURTESY KALUNDBORG SYMBIOSE CENTER (1); COURTESY NASTY GAL (2); FIGURES AS OF JANUARY 11; DATA: BOX OFFICE MOJO

Sustainability Denmark's Industrial Ecosystem

275k

Reduction in carbon dioxide emissions realized from recycling

The Kalundborg Symbiosis is a set of factories and municipal water treatment facilities that recycle one another's water, energy, and waste. They also sell byproducts such as fly ash, a coal-burning residue, to other companies. The system grew gradually through intercompany agreements starting in the 1970s, when a local oil refinery started piping excess gas to a nearby factory that manufactured sheetrock. The recycling not only has environmental benefits but also helps companies lower costs. "If there wasn't a good business case, we wouldn't be doing it," says Michael Hallgren, senior vice president of member Novo Nordisk.
—*Carol Matlack and Mark Glassman*



Briefs

By Caroline Winter

California Dreamin’

The National Football League voted to allow the *St. Louis Rams* to return to Los Angeles for the fall 2016 season and eventually settle into a new $1.9 billion stadium in Inglewood. The move gives the league a presence in the city for the first time in more than two decades. Team owner Stan Kroenke will pay the NFL $650 million in relocation fees over the next 10 years. *General Electric* plans to eliminate about 6,500 jobs in Europe, including 765 in France and 1,700 in Germany. The cuts, part of a restructuring designed to achieve $3 billion in savings, follow GE’s $9.2 billion purchase of the energy business of French multinational Alstom. As part of the deal, GE said it would create 1,000 new jobs in France. *Samsung Electronics* plans to establish an independent committee to inspect its Korean chip factories, after hundreds of workers developed rare cancers and other illnesses. Samsung already has set up an $83 million fund to compensate victims and fund preventive measures. *Al Jazeera America* will cease operations on April 30. The cable news channel, which premiered in 2013 after buying Al Gore’s Current TV for $500 million, struggled to build an audience and faced internal strife. In a memo to the staff, CEO Al Anstey didn’t address how many jobs would be lost. After a four-year absence, *Unilever* will return to Cuba in a $35 million joint venture with the island nation’s state-owned detergent company, *Intersuchel*. The Anglo-Dutch company will take a 60 percent stake in the business.

Walt Disney announced that its $5.5 billion Disneyland park and resort will open in Shanghai on June 16, about a year after the biggest Disney store in the world opened there.

Amount of venture capital raised in 2015, a 10 percent drop from the $31.1 billion raised in 2014.

$28 billion

CEO Wisdom

“In lieu of knowing anybody, imagine you know them, and then in your own way you can convince yourself you do, and you can have your dream mentor.”
—Nick Woodman, CEO of GoPro, discussing mentors at the 2016 Consumer Electronics Show

◀ just on the verge of failure.”

In the past, to spread risk and satisfy their creative souls, Fellner and Bevan would crank out four to five movies a year, a mix of mainstream fare such as *Mr. Bean’s Holiday* and more independent filmmaker-driven stories such as *The Theory of Everything*. Fellner says growing consumer interest in pay-per-view and streaming services such as **Netflix** may change that calculus. “Maybe some of the more specialist films we’ll make with digital platforms,” he says.

Having smaller budgets doesn’t necessarily mean Working Title’s films can be turned out more quickly than rivals’ pricey blockbusters. Take *Everest*, the company’s 2015 hit. After Working Title spent more than a decade developing the script, Fellner says Universal wanted the pair to bring in some outside money to reduce the risk. They turned to Walden Media, owned by **Anschutz Entertainment Group**, and **Cross Creek Pictures** for more financing and used Universal as the distributor. *Everest* cost $55 million and took in $202 million at the box office.

One of Working Title’s advantages is being in the U.K., where film production has soared thanks to generous tax breaks. Film companies can reclaim as much as 25 percent of any U.K. production spending back from the government. Such incentives helped film production soar to a record £1.4 billion ($2 billion) for the 12 months ended Sept. 30, 2015, a 39 percent jump vs. the same period three years earlier. “International filmmakers are coming to the U.K. because of the stability and competitiveness of the tax credit but also because of the skills of the crews,” says Adrian Wootton, chief executive of film promotion agency Film London and the British Film Commission. He says Working Title’s steady production stream has been a key driver of industry growth. “They’re progenitors,” he says. “They’ve helped foster the talent pool everyone is now drawing on.” —*Stephanie Baker*

The bottom line No action flicks needed: Working Title’s offbeat films have grossed more than $6.5 billion at the box office and won 11 Oscars.

Edited by James E. Ellis and Dimitra Kessenides
Bloomberg.com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And more!

Wooing Warren

▶ The Democratic star skipped a presidential run, but she's stayed in the picture

▶ "Her prime directive is not to damage the party's chances in November"

Early last year, the frenzy to enlist Elizabeth Warren in the 2016 presidential race grew so intense that a Ready for Warren group emerged to lead a draft effort. Reporters parsed the Democratic Massachusetts senator's every utterance for clues to her plans. In the end, Warren opted to pass. But so far, she hasn't thrown her support behind any of the candidates.

With President Obama unlikely to weigh in, Warren is the most important Democratic elected official who has yet to endorse. Her iconic status among the party's liberal grass roots, and the national fundraising base she commands, would deliver a substantial boost to Hillary Clinton, Bernie Sanders, or Martin O'Malley.

Sanders would appear to be the most ideologically compatible choice for Warren, because his populist, anti-Wall Street rhetoric mirrors her own. And indeed, many of her supporters, including the founders of her draft movement, have embraced him. But Warren has been noticeably reluctant to lend her name to Sanders's presidential campaign, because, her advisers say, she's determined that Democrats should hold on to the White House after Obama leaves office and is not convinced Sanders could win. "Her prime directive is not to damage the party's chances in November," says a close Warren associate who has discussed the matter with her.

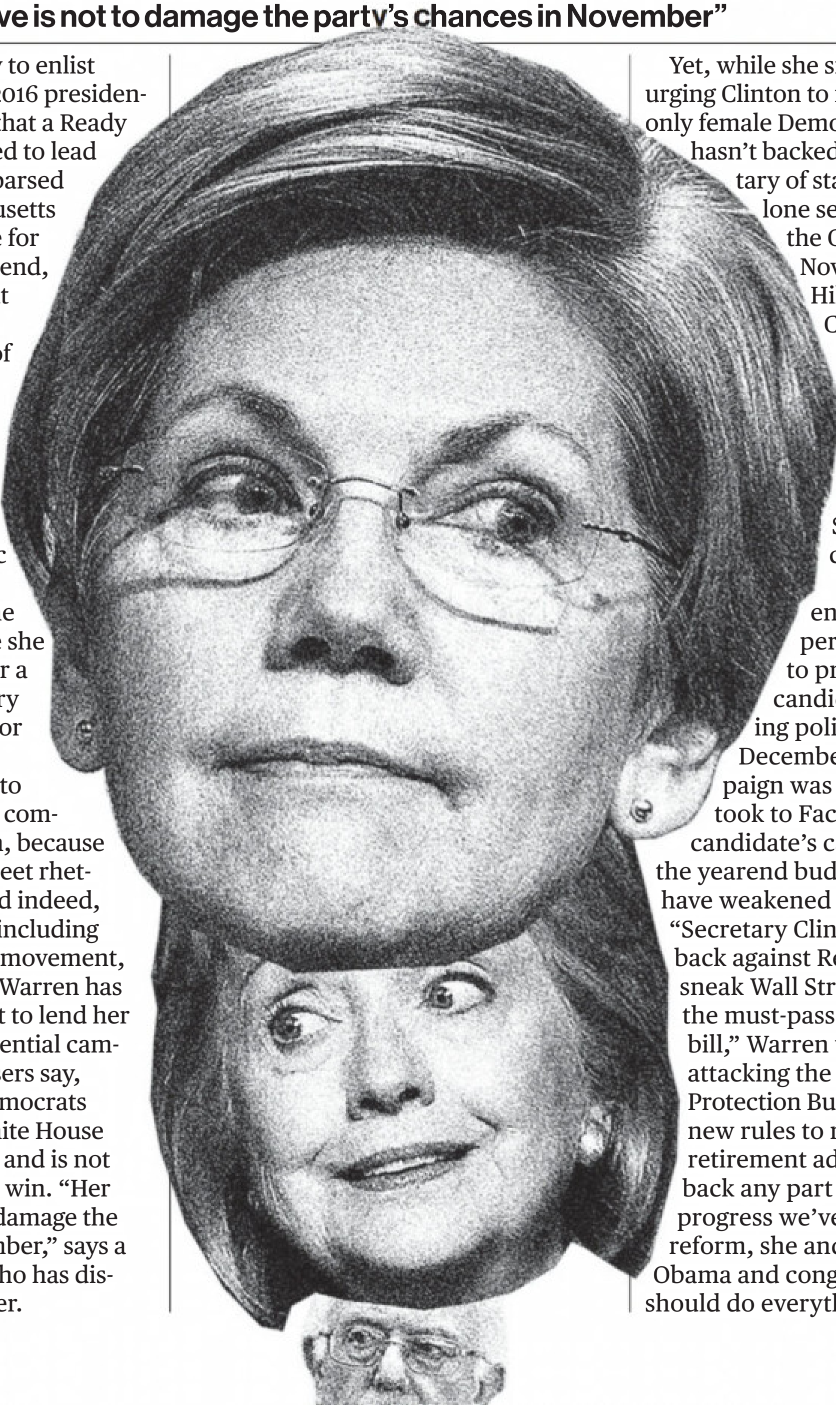


PHOTO ILLUSTRATION BY 731; PHOTOS: GETTY IMAGES (2); ZUMA PRESS (1)

Yet, while she signed a 2013 letter urging Clinton to run, Warren is the only female Democratic senator who hasn't backed the former secretary of state. She was also the lone senatorial no-show at the Clinton campaign's Nov. 30 Women for Hillary rally near the Capitol. "Maybe she has a cold," Maryland Senator Barbara Mikulski deadpanned at the time. Representatives for Warren, Clinton, and Sanders declined to comment.

Warren isn't being entirely silent. She periodically emerges to praise the major candidates for espousing policies she favors. In December, the Clinton campaign was elated when Warren took to Facebook to applaud the candidate's call to block riders in the yearend budget bill that would have weakened financial regulations. "Secretary Clinton is right to fight back against Republicans trying to sneak Wall Street giveaways into the must-pass government funding bill," Warren wrote. "Whether it's attacking the [Consumer Financial Protection Bureau], undermining new rules to rein in unscrupulous retirement advisers, or rolling back any part of the hard-fought progress we've made on financial reform, she and I agree: 'President Obama and congressional Democrats should do everything they can to ▶

Weigh 8.5 pounds on average and often fly in large flocks

◀ stop these efforts.' " Sanders has garnered similar approbation. On Jan. 6, Warren unleashed a tweet storm in support of his speech on Wall Street reform: "I'm glad @BernieSanders is out there fighting to hold big banks accountable, make our economy safer, & stop the GOP from rigging the system."

Warren's allies argue that she's been able to shape the primary race by creating a system of incentives that has influenced candidate behavior. "There was almost no oxygen in the room for big, structural Wall Street reform after Dodd-Frank until Warren came on the scene," says Adam Green, co-founder of the Progressive Change Campaign Committee, a liberal group. "The fact that all three Democratic presidential candidates are competing with each other to have the boldest plan for Wall Street reform and accountability—including explicitly calling for jailing Wall Street bankers who broke the law—is testament to Warren's looming presence and influence in the Democratic primary."

Warren has extracted some significant policy commitments that will be difficult for a future Democratic president to break. In August, Vice President Joe Biden met privately with Warren while considering a presidential run. A week later, Clinton endorsed a bill that Warren has championed restricting "golden parachute" pay packages for Wall Street bankers who take jobs with the federal government—a development many liberals took as a sign that Clinton feared losing Warren's support to Biden.

> **"The fact that all three Democratic presidential candidates are competing with each other to have the boldest plan for Wall Street reform... is testament to Warren's looming presence."**
> **—*Adam Green***

Given the almost Trump-like media fixation with Warren as recently as a year ago, it's remarkable that she's disappeared from the presidential race to the degree that she has. While it's possible that she will be able to maintain her low profile until a nominee emerges, it's also easy to envision a scenario in which she is thrust right back into the middle of the race: Both Clinton and Sanders backers agree that if Sanders were to prevail in Iowa and New Hampshire, Warren would come under intense pressure from both candidates to deliver an endorsement.

A few liberals say there's a scenario that could essentially yield two winners: Clinton, as the party's nominee, and a greatly enhanced Sanders, who would return to the Senate with a celebrity and grass-roots following that might even eclipse Warren's own. "Sanders has gained stature and ability to be more effective in the Senate," says Jeff Hauser, who runs the Revolving Door Project, a group focused on getting regulators appointed who are skeptical of the industries they oversee. "His ability to get journalists to write about his senatorial agenda in 2017 will be a lot higher because he's run. So he's actually become a lot like Warren herself, with big sway in the Senate. If he isn't the nominee, he'll be an even more effective ally for her in the future."

It's an added source of comfort to the party's Warren wing—and a silver lining to the prospect of a Sanders loss—that the two most powerful Senate Democrats in a future Clinton presidency would be committed liberals. Says Charles Lenchner, who co-founded Ready for Warren and went on to establish People for Bernie: "Thank God the movement to break up the big banks isn't restricted to supporters of one politician or the other." —*Joshua Green*

The bottom line Elizabeth Warren's endorsement will mean a big boost among Democratic voters for Clinton or Sanders.

Aviation

Hitchcock Was Right About the Birds

▶ **Growing populations of large species raise the risk to planes**

▶ **"To the industry, this is becoming business as usual"**

In a drab warehouse beneath the Smithsonian Institution's National Museum of Natural History in Washington, Carla Dove tries to solve mysteries. On a December afternoon, she has just a fragment of a black feather, which was found after a jet slammed into a bird in California, to help identify the species. The Gulfstream G550 corporate jet landed safely after its left wing struck the bird just before touchdown, according to the Federal Aviation Administration. Based on the fragment's size and color, Dove heads straight to the cabinet holding a preserved 3-foot-tall golden eagle. The species averages about 8.6 pounds, more than enough to tear an engine apart or blast a hole in an airliner's fuselage. "This is a huge bird," she says. She compares its black plumage to her broken feather. The sample is a match.

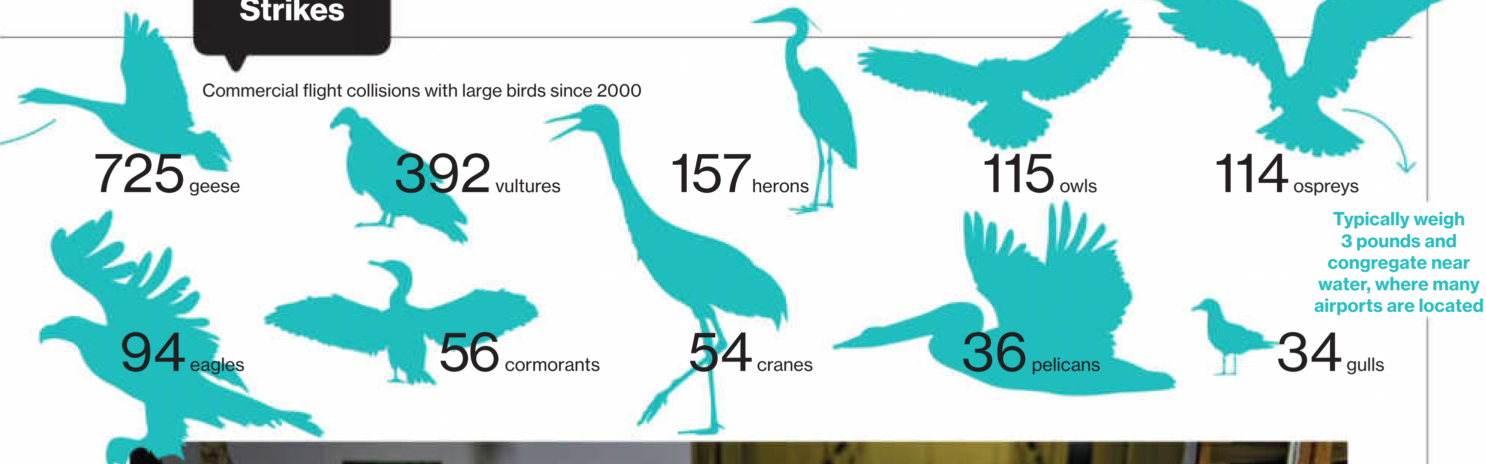
Seven years after a flock of Canada geese forced a US Airways Airbus A320 jet down into the Hudson River, the number of cases of planes striking large birds capable of doing serious damage has risen sharply. Collisions rose 37 percent from 2000 to 2014, according to the most recent data available from the FAA. There were 284 such cases in 2014, the most since the agency began collecting records in 1990. "The risk of bird strikes is increasing everywhere around the world," says Valter Battistoni, an Italian consultant who advises airlines and runs the website birdstrike.it.

Dove, a forensic ornithologist with a doctorate from George Mason University, sees the evidence in her office at the Smithsonian, where she receives feathers and bird remains recovered from planes and runways. In fiscal 2008 her lab received 787 samples from civilian aviation. In the last fiscal year, it got 3,412. The Smithsonian now has a DNA library of bird species so it can identify the victims from recovered tissue samples, known as "snarge," when feathers aren't available.

Identifying the species can help authorities direct efforts to reduce or scare away certain bird populations. Dove's predecessor, Roxie Laybourne, invented feather forensics after a flock of starlings took down an Eastern Airlines plane in Boston in 1960, killing 62. Dove, who started at the Smithsonian in 1989, worked alongside Laybourne until her death in 2003. The surge in the lab's caseload since has left Dove frustrated. "To the industry, this is becoming business as usual," Dove says. "It's an accepted risk, because they think there is nothing they can do about it. That's completely wrong."

Bird Strikes

Commercial flight collisions with large birds since 2000



Carla Dove in the Smithsonian's feather identification lab

DATA COMPILED BY BLOOMBERG

While some think the increase in strikes may be due to better reporting, the FAA has said it's considering stronger aircraft structures and lower speed limits at low altitudes, which would lessen the force of impacts. "The bird strike threat has increased, especially the threat due to larger birds," the agency said in a June 25 notice. One reason is a growth in bird populations, particularly of large species that travel in flocks, which can inflict damage to multiple engines. The North American population of Canada geese has grown to 5.7 million, from about 2.6 million in 1990, according to the U.S. Fish and Wildlife Service.

Some safety advocates say the FAA should be doing more, such as halting flights when bird activity is high and revising flight paths to avoid known danger areas. "I don't know how many of these high-risk threats you have to go through before people wake up," says Paul Eschenfelder, a former airline pilot who's an adjunct professor at Embry-Riddle Aeronautical University.

Deaths caused by plane crashes involving birds are rare, but there have been several close calls in recent years, including the so-called Miracle on the Hudson on Jan. 15, 2009. Geese snuffed out both of US Airways Flight 1549's engines after it left New York's LaGuardia Airport, and only fast action by the pilots—and a lot of luck—kept it from crashing, according to the U.S. National Transportation Safety Board. All 155 people on board got to ▶

◀ safety after the plane ditched in the Hudson. In that case, Dove's lab used hydrogen isotopes to determine that the birds were part of a migrating flock, not year-round New York residents.

From 2012 through 2014, there were 305 cases in the U.S. in which birds caused substantial damage to a commercial aircraft, according to FAA records. In 2014, a **Southwest Airlines** plane struck a flock of Canada geese while preparing to land at Baltimore Washington International Thurgood Marshall Airport. The Boeing 737-700 was hit on its nose, left wing, and in both engines. While the pilots landed safely, passengers reported the right engine was on fire as it neared the runway. In the two weeks around Thanksgiving, collisions were reported in Denver, Las Vegas, and Kansas City, Mo. No one died in any of those incidents. "I don't even know what to say," says Dove. "Are we lucky?" —*Alan Levin*

The bottom line Growth in populations of large birds has increased risks to airliners, but regulations haven't changed.

Iowa Poll

Democrats %		Republicans %	
42	Hillary Clinton	25	Ted Cruz
40	Bernie Sanders	22	Donald Trump
4	Martin O'Malley	12	Marco Rubio

Ben Carson came in fourth at 11 percent, a statistical tie with Rubio

Top three finishers in a Bloomberg Politics/*Des Moines Register* poll of 500 likely Republican and 503 likely Democratic caucusgoers conducted Jan. 7 to Jan. 10 by **Selzer & Co.** The margin of error is +/- 4.4 percentage points.

Climate Change

Clash of the Evergreen Giants

▶ **Washington state may consider two carbon fee measures in 2016**

▶ **"Trying to beat the fossil fuel industry is really difficult"**

Billionaire Tom Steyer went big on the 2014 elections. He poured more than $65 million into a super PAC, NextGen Climate, with the goal of electing candidates willing to support limits on greenhouse gas emissions. The results weren't great: Four of the seven U.S. Senate and gubernatorial candidates NextGen backed across the country lost. In Washington state, where the group put $1.3 million into five legislative races, hoping to deliver a majority to climate-minded Democratic Governor Jay Inslee, not a single candidate won.

That hasn't stopped NextGen from getting involved in the 2016 elections. In November the group contributed $80,000 to the Alliance for Jobs and Clean Energy, which counts many of Washington state's largest unions and environmental groups as members. The alliance plans to begin gathering signatures for a voter initiative that would require the largest polluters to pay a mitigation fee for each ton of greenhouse gas released, and invest the proceeds in clean energy. The idea echoes NextGen's ads in presidential primary states urging a shift in U.S. energy production to 50 percent renewable resources by 2030. "It's the most extraordinary coming-together that I have ever seen" in 25 years, says Gregg Small, president of the alliance's governing board and executive director of Climate Solutions, a Seattle-based nonprofit.

The trouble is, there's already competition. In December a group of climate activists submitted enough signatures to qualify a measure, known as Initiative 732, for legislative consideration. Led by economist Yoram Bauman, the proposal pairs a $25-per-ton tax on burning fossil fuels with offsetting reductions of other taxes. The idea is to shift taxes rather than add to them. It would raise $2 billion a year—from drivers, who might pay an extra 25¢ per gallon of gasoline; households likely to see higher utility bills; and manufacturers, through increased energy costs. That would be balanced by a penny-per-dollar cut in the sales tax, elimination of some business taxes, and a credit for low-income families. "I like the efficiency of it," says Bauman, who holds a Ph.D. from the University of Washington and specializes in writing cartoon-illustrated textbooks on climate change and economics. "It's simple and transparent."

Bauman has been pushing for a carbon tax since 1998, when he co-wrote a book, *Tax Shift*, proposing the idea. It was adopted a decade later by British Columbia and embraced last year by Alberta, known as the Texas of Canada because of its oil resources. The British Columbia tax is credited with reducing fossil fuel use 16 percent in its first five years. Bauman, who's **written a haiku** to promote Initiative 732, hopes to attract conservative voters who oppose new spending but also worry about climate change. "We're serious about doing something that's going to get bipartisan support," he says.

Talks to unite Bauman's initiative with the Steyer-backed alliance plan fell apart in late December. Alliance supporters accused Bauman's group of trying to sneak through tax cuts under the guise of climate change. They pointed to one state analysis that showed his measure might reduce tax revenue by $675 million over four years. Bauman's backers responded that the attacks

Bauman's haiku

Fossil CO_2
Twenty-five dollars per ton
Revenue neutral

only gave credibility to conservative claims that climate change is a left-wing Trojan horse to expand government. An alliance spokesman declined to comment. Its governing board is weighing its options, which include pressing ahead, teaming with Inslee to cap emissions via executive orders, or dropping out entirely, according to one person familiar with the discussions. "Trying to beat the fossil fuel industry is really difficult," Small says. "It's harder to do when we're not all together." —*Peter Robison*

The bottom line A Washington state climate-change initiative backed by Tom Steyer's NextGen Climate super PAC faces a rival proposal.

Advertising

Auto Dealers Pay A Price for Democracy

▶ **Campaign ads squeeze out their ads, costing them sales**

▶ **"There has always been tension in the past"**

With the presidential primaries less than a month away, one constituency is dreading the coming barrage of political advertising more than any other: auto dealers. In swing states, campaign ads can soak up a third or more of local broadcast television advertising time, crowding out car dealerships, typically the biggest buyers of local TV ad time. That's had a measurable effect on auto sales in political battlegrounds.

Yearly auto sales have fallen only twice during presidential election years since Lyndon Johnson beat Barry Goldwater in 1964, according to Edmunds.com. But Ken Goldstein, a Bloomberg Politics analyst and politics professor at the University of San Francisco, and Carly Urban, an economics professor at Montana State University, say that when political ads displaced car ads, auto sales weren't as good as they might have been.

Nationally, the rate of new-auto sales slowed by 1.5 percent just before the last presidential election—but by three times as much in markets such as Cleveland and Las Vegas that had the most political ads, according to an analysis of data from market-research firms Kantar and Kelley Blue Book. In Cleveland, the number of car ads that ran on local broadcast stations in October 2012 dropped 16 percent, to 4,553, from the previous year, while the number of political ads soared to more than 27,000. Car and light truck sales rose just 5 percent in the greater Cleveland metro area, while national sales gained 16 percent, according to Kelley Blue Book. "Ohio was carpet-bombed with political TV ads in the months before the 2012 election," says Bernie Moreno, who runs the Collection Auto Group, a chain of car dealerships around Cleveland. "We were not able to get our message out as effectively."

Auto dealers spent $8.1 billion on advertising in all of 2014, with the average dealer allotting $114,145 to TV spots, according to the National Automobile Dealers Association. During the 2016 election season, Kantar's Campaign Media Analysis Group predicts, local television stations may get more than $3 billion in political ad spending.

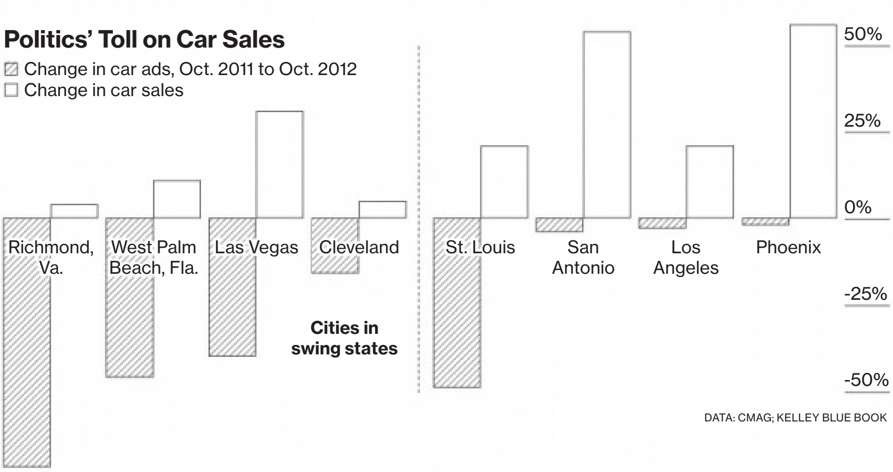
Candidates and super PACs have already pumped an estimated $112 million-plus into local broadcast television advertising, buying more than 113,800 ads, mostly in Iowa and New Hampshire. By law, political campaigns are guaranteed the lowest rates for airtime, based on prices offered a year earlier. Super PACs, which this year will outspend candidates, pay market rates, and are often willing to pay a substantial premium to book airtime at the last minute.

In 2012, according to Goldstein and Urban, in weeks when political ads made up less than 2 percent of local broadcast spots, local dealerships bought about 14 percent of airtime devoted to ads. When political ads spiked above 30 percent of available ad time, auto ads' share fell to 6 percent. "There has always been tension in the past, especially in markets where the political contests are the hottest," says Kip Cassino, an analyst with Borrell Associates, a Virginia-based company that tracks media trends.

This year, dealers are trying to maintain momentum after selling a record 17.5 million new cars and light trucks in the U.S. in 2015. Analysts predict 2016 growth will be slower. "When you talk about looking at 2016 as one that's following a record year, obviously it's not too difficult for us to see the market contract," says Alec Gutierrez, an analyst for Kelley Blue Book.

TV executives usually bend over backward in advance of the election season to make sure dealers are taken care of, according to Steve Lanzano, head of TVB, a trade association for broadcasters. "The stations are very good about trying to be accommodating to the advertisers that are with them 365 days of a year, vs. those with them four to six weeks, maybe, every other year," he says. But the uptick in super PAC spending expected this year may make it harder for stations to honor time promised to loyal clients. Moreno, the Cleveland-area dealer, isn't taking any chances. He's shifted most of his ad budget to digital and plans to "only spend a very small part of our budget on TV." —*Tim Higgins*

Politics' Toll on Car Sales



DATA: CMAG; KELLEY BLUE BOOK

The bottom line An analysis of 2012 ad data shows auto dealers lost sales when their ads were elbowed out by campaign commercials.

Edited by Allison Hoffman
Bloomberg.com

January 18 — January 24, 2016

Facebook's Fight To Be Free

PHOTO ILLUSTRATION BY 731; PHOTOS: ALAMY; BLOOMBERG

▶ In India, Mark Zuckerberg can't give Internet access away

▶ "We see it as a land grab"

Thanks mostly to its mobile-ad profits, **Facebook** has had a great couple of years. According to its most recent earnings report, in November, the company's quarterly ad revenue rose 45 percent, to $4.3 billion, from the same period in 2014. It has more than 1.5 billion monthly users, just over half of all the people online anywhere. Keeping up its rate of user growth—more than 100 million people each year—will only get tougher.

A big part of the problem is that a lot of potential new eyeballs are in places where Internet access is patchy at best. Some of Facebook's grander projects anticipated that issue: It has satellites and giant solar-powered planes that beam Wi-Fi down to areas that don't have it. And then there's Free Basics, the two-year-old project Chief Executive Officer Mark Zuckerberg has called an online 911. In about three dozen countries so far, Free Basics—also known as Internet.org—includes a stripped-down version of Facebook and a handful of sites that provide news, weather, nearby health-care options, and other info. One or two carriers in a given country offer the package for free at slow speeds, betting that it will help attract new customers who'll later upgrade to pricier data plans.

Facebook says Free Basics is meant to make the world more open and connected, not to boost the company's growth. Either way, online access is an especially big deal in India, where there are 130 million people using Facebook, 375 million people online, and an additional 800 million-plus who aren't. (The social network remains blocked in China.) That may help explain why Zuckerberg spent part of the first few weeks of his paternity leave appealing personally to Indians to lobby for Free Basics. On Dec. 21 the Indian government suspended the program, offered in the country by carrier **Reliance Communications**, while it weighs public comments and arguments from Internet freedom advocates who say preferential treatment for Facebook's services threatens to stifle competition.

Since the government's telecommunications regulator announced the suspension, Facebook has bought daily full-page ads in major newspapers and plastered billboards with pictures of happy farmers and schoolchildren it ▶

◀ says would benefit from Free Basics. Zuckerberg has frequently made the case himself via phone or newspaper op-ed, asking that Indians petition the government to approve his service. "If we accept that everyone deserves access to the Internet, then we must surely support free basic Internet services," the CEO wrote in a column published in the *Times of India*, the nation's largest daily paper, shortly before the new year. "Who could possibly be against this?"

Opponents, including some journalists and businesspeople, say Free Basics is dangerous because it fundamentally changes the online economy. If companies are allowed to buy preferential treatment from carriers, the Internet is no longer a level playing field, says Vijay Shekhar Sharma, founder of Indian mobile-payment company **Paytm**. A spokesman for Sharma confirmed that Zuckerberg called to discuss the matter but declined to comment further.

"An emerging country like India needs to provide the consumer with incentives to get onto the Internet." —*Neha Dharia, an analyst at consulting firm Ovum*

India's Internet base will grow with or without Facebook's help, says Nikhil Pahwa, a tech blogger and co-founder of the Save the Internet coalition, which opposes Free Basics. "We don't see Free Basics as philanthropy. We see it as a land grab," says Pahwa. When dealing with the famously protectionist Indian government, that's a pretty good argument. An April attempt by India's top mobile carrier to underwrite data costs for certain apps drew heavy criticism, and the carrier, **Bharti Airtel**, has put the program on hold.

None of that means Facebook can't help get more Indians online, says Neha Dharia, an analyst at consulting firm Ovum. "An emerging country like India needs to provide the consumer with incentives to get onto the Internet," she says. "What Facebook Free Basics is doing is a bit extreme, but what you do need is a bit of a middle path."

Internet sampler packages such as Free Basics can also help carriers like Reliance, the fourth-largest in India, upgrade their often-struggling networks, Dharia says. That's a symbiotic process, because customers may quickly grow frustrated with the bare-bones service and demand more. Free Basics doesn't have Gmail, YouTube, Vimeo, Twitter, or Bollywood music streaming. (Video will account for 64 percent of India's data traffic by March 2017, consulting firm Deloitte estimates.) It's meant to be a stepping-stone. Facebook says about 40 percent of Free Basics users start paying for data plans within a month.

But again, if Free Basics catches on in India, people may just keep paying for data to use more Facebook and forget about some of those other services, says Dharia. "Facebook is the Internet" to a lot of people in India, she says. **Google**, whose services are most conspicuously absent from the Free Basics roster, declined to comment.

India's telecommunications regulator says Facebook's advocates and opponents have until Jan. 14 to file public comments; it's received about 2.4 million responses so far, most of them form letters supporting Free Basics. The government's decision could also ripple beyond India, says Pranesh Prakash, a Free Basics opponent and the policy director at the nonprofit Centre for Internet & Society in Bengaluru. In the weeks since India suspended Free Basics, Egypt, which had done the same back in October, once again shut down the Facebook plan, though the government wouldn't say why. The India fight "will be a reputational challenge for Facebook," says Prakash. "It will set the tone for Free Basics debate in other countries." —*Adi Narayan and Bhuma Shrivastava*

The bottom line Facebook's free data plan in India faces strong opposition from local businesses and Internet freedom advocates.

Cybersecurity
How Hackers Took Down a Power Grid

▶ **Ukraine was an easy target—but the U.S. has its own weaknesses**

▶ **"We always thought there would be this Pearl Harbor event"**

It was an unseasonably warm afternoon in Ukraine on Dec. 23 when the power suddenly went out for thousands of people in the capital, Kiev, and western parts of the country. While technicians struggled for several hours to turn the lights back on, frustrated customers got nothing but busy signals at their utilities' call centers.

Almost immediately, Ukrainian security officials made claims about the cause of the power failure that evoked futuristic concepts of cyberwar. Hackers had taken down almost a quarter of the country's power grid, they said. Specifically, the officials

Mobile Tap-and-Pay Starts to Take Off

U.S. consumers spent about $8.7 billion in checkout lines last year using their phones, estimates researcher EMarketer. Retailers and banks are pushing out their own payment apps to cut swipe fees, get valuable data on people's buying habits, or both. "Every one of the top 11 issuers of credit and debit cards by the end of next year will have their own version of Pay," says Richard Crone, chief executive officer of Crone Consulting. "Same for retailers." Here's the current state of play. —*Olga Kharif*

$210b
Estimated value of payments through phone taps at U.S. checkout counters in 2019, according to EMarketer

Pay

Apple Pay
Apple's system experienced some growing pains in 2015 but has a loyal fan base, counting Whole Foods among its users. The biggest thing holding it back is that it doesn't work with iPhones older than the 6.

22m
shoppers use Walmart's app

blamed Russians for tampering with the utilities' software, then jamming the power companies' phone lines to keep customers from alerting anyone.

Hacking a power grid: It sounds like the kind of doomsday scenario experts in the U.S. and Europe have warned about for years. "Imagine if someone shut down the power to New York's traffic grid during rush hour," says Tony Lawrence, chief executive officer of cybersecurity firm VOR Technology. "Cyber attacks against public utilities systems could have disastrous effects." But the cybersecurity researchers investigating the power failure now say it's clear this wasn't the kind of sophisticated attack that could fell the U.S. in 15 minutes, as former White House counterterrorism chief Richard Clarke famously predicted.

"We always thought there would be this Pearl Harbor event. One day, someone would get mad enough, and they'd unleash the hounds of hell," says Jason Larsen, a consultant with cybersecurity firm IOActive who specializes in industrial control systems. "That's not really what we've seen."

The Ukrainian hack knocked out at least 30 of the country's 135 power substations for about six hours. Cybersecurity firms working to trace its origins say the attack occurred in two stages. First, hackers used malware to direct utilities' industrial control computers to disconnect the substations. Then they inserted a wiper virus that made the computers inoperable.

Several of the firms researching the attack say signs point to Russians as the culprits. The malware found in the Ukrainian grid's computers, BlackEnergy3, is a known weapon of only one hacking group—dubbed Sandworm by researcher ISight Partners—whose attacks closely align with the interests of the Russian government. The group carried out attacks against the Ukrainian government and NATO in 2014. The wiper virus was last seen in attacks against journalists covering local elections in Ukraine in October. "The targets are definitely in line with Russian geopolitical interests," says John Hultquist, ISight's director of cyber espionage analysis.

The more automated U.S. and European power grids are much tougher targets. To cloak Manhattan in darkness, hackers would likely need to discover flaws in the systems the utilities themselves don't know exist before they could exploit them. In the Ukrainian attack, leading security experts believe the hackers simply located the grid controls and delivered a command that shut the power off. Older systems may be more vulnerable to such attacks, as modern industrial control software is better at recognizing and rejecting unauthorized commands, says IOActive's Larsen.

That said, a successful hack of more advanced U.S. or European systems would be a lot harder to fix. Ukrainian utility workers restored power by rushing to each disabled substation and resetting circuit breakers manually. Hackers capable of scrambling New York's power plant software would probably have to bypass safety mechanisms to run a generator or transformer hotter than normal, physically damaging the equipment. That could keep a substation offline for days or weeks, says Michael Assante, former chief security officer for the nonprofit North American Electric Reliability.

Hackers may have targeted Ukraine's grid for the same reason NATO jets bombed Serbian power plants in 1999: to show the citizenry that its government was too weak to keep the lights on. The hackers may even have seen the attack as in-kind retaliation after sabotage left 1.2 million people in Kremlin-controlled Crimea without lights in November. In that case, saboteurs blew up pylons with ▶

Digits

1/3

The fraction of **Yahoo!**'s workforce that left the company in the last year, the *New York Times* reported on Jan. 11

CEO Marissa Mayer is expected to announce a fresh round of layoffs at the Internet pioneer, which has about 11,000 employees

DAVID PAUL MORRIS/BLOOMBERG

Banking apps are already used by more than half of U.S. smartphone owners with bank accounts, according to the latest Federal Reserve survey

173m

PayPal's "active users," according to its most recent quarterly report

Walmart Pay
Walmart says it'll be able to process payments through its bargain-hunter app in all U.S. stores by this summer. Millions of Walmart shoppers already use it monthly to compare prices and clip digital coupons.

Samsung Pay
Unlike Apple's or Google's, Samsung's payment service, introduced in the U.S. in September, works with a fairly wide range of in-store hardware. Consumers need a newer Galaxy smartphone, though.

Chase Pay
While JPMorgan Chase supports Apple's and Samsung's mobile wallets, the bank is shooting for a mid-2016 relaunch of its own app, adding the ability to handle retail transactions. Chase says it'll preload card data for about 100 million accounts.

Android Pay
Google's new payment service, launched in September, improves on its earlier mobile wallet. Google says millions of people have signed up for Android Pay, developed after the company acquired mobile-payment rival Softcard.

MCX CurrentC
Merchant Customer Exchange, a group founded in August 2012 by Walmart, Target, and other stores, is testing CurrentC with about 200 merchants in Columbus, Ohio. "There will be more than one successful player," says CEO Brian Mooney.

PayPal
The former EBay subsidiary is working on a contact-free in-store payment feature that will pit its app more directly against the rest of the field later this year. For now, users need to find other ways to use the service at partner stores such as Macy's and Home Depot.

Loaded and Locked

Armatix's Baselock module requires a PIN to release a firearm it's holding. A rod holds the gun in place.

Kodiak Industries' Intelligun recognizes a user's fingerprint. Gripping the gun unlocks the gun, which relocks as soon as the wielder lets go.

IGun Technology's system incorporates an RFID chip into a ring worn by the owner and uniquely coded for a particular gun, which activates when the wearer's ring hand is placed on the stock.

◀ explosives, then attacked the repair crews that came to fix them, creating a blackout that lasted for days. Researchers will continue to study the cyber attack in Ukraine, but the lesson may be that when it comes to war, a bomb still beats a keyboard. —*Jordan Robertson and Michael Riley*

The bottom line Aging systems made the Ukraine grid easier to hack but also easier to get back up in hours. A successful U.S. attack could last weeks.

Hardware

The Challenges for Smart-Gun Makers

▶ **Obama's reform push won't create demand overnight**

▶ **"These technologies aren't ready for the market yet"**

"If we can set it up so you can't unlock your phone unless you've got the right fingerprint, why can't we do the same thing for our guns?" That's the reasonable-sounding question President Obama asked during his Jan. 5 gun control address from the White House. The answer is a little complicated: Even with presidential backing, it would be naive to expect a market for so-called smart guns to spring to life anytime soon.

Digitally equipped firearms have been around since the mid-1990s. They're designed to avoid mishaps and criminality by working only for authorized users. Smart guns typically employ either biometric technology, like fingerprint scanners, or a radio-frequency-identification device (RFID), such as a ring or bracelet that sends a signal to unlock the weapon at a certain proximity.

Hostility from gun rights activists has deterred any major manufacturer from marketing smart guns. **Colt's Manufacturing**, for example, dropped a smart-gun project in the late '90s following a severe consumer backlash. Retailers who've put startups' products on their shelves have likewise faced fierce ideological protests.

To counteract such resistance, Obama included among the executive actions announced in early January a directive to the departments of Defense, Justice, and Homeland Security to conduct or sponsor research on digital devices that would reduce gun accidents and unauthorized use.

Smart-gun proponents applauded. Margot Hirsch, president of the nonprofit Smart Tech Challenges Foundation, which has distributed $1 million over two years to 15 entrepreneurs working on digital-weapon projects, tried to leverage the president's announcement in a fresh fundraising appeal. "That the federal government will work with the private sector to promote the development of smart-gun technology comes as exciting news to the innovators who have been working diligently to get products to market," Hirsch said in a mass e-mail. In a follow-up interview, she adds that "these technologies aren't ready for the market yet—they need more R&D—but the president's action will jump-start the process."

The response from one leading innovator was tepid at best. "I don't know yet" whether the Obama initiative will help, says Jonathan Mossberg, a scion of the **O.F. Mossberg & Sons** gun manufacturing company. Fifteen years ago, he spun off a tiny business called **IGun Technology** and has since invested about $3 million in the venture. It has produced a

14

percent

Share of Americans who say they'd consider buying a smart gun

FROM LEFT: COURTESY ARMATIX; COURTESY KODIAK INDUSTRIES; COURTESY IGUN TECHNOLOGY; ILLUSTRATION BY 731; COURTESY BSRD

functioning prototype 12-gauge shotgun equipped with RFID technology. Over the years, IGun has received $235,000 in Justice Department grants as well as $100,000 from Hirsch's foundation.

Mossberg says he has a smart gun ready for the marketplace but the marketplace doesn't seem ready for his product. "It should be a $1 billion industry," he says, citing gun industry trade group surveys showing that 14 percent of Americans say they'd consider buying a commercially available smart gun.

Gun wholesalers and retailers are understandably hesitant to touch the Mossberg IGun. One gun store owner, Andy Raymond of Rockville, Md., gained notoriety for posting an Internet video in 2014 describing how he'd received death threats after trying to sell the Armatix iP1, a German-made pistol that fires only within range of an authorized user's RFID-equipped wrist piece.

The National Shooting Sports Foundation, the gun industry's main trade group, hasn't opposed smart guns in principle, but it's warned against any government attempt to mandate them. The NSSF points to a 2002 New Jersey law, the Childproof Handgun Act, which says the state's firearm retailers would be required to sell only smart guns three years after a "personalized" firearm was offered for sale anywhere in the U.S. Second Amendment advocates often cite the state law as evidence that any government move favoring smart guns is actually a first step toward banning conventional ones. NSSF officials didn't respond to requests for comment for this article.

Jonathan Mossberg has another concern. "Now that the president has made this a priority, the Justice Department might start throwing money at people who really don't have the technology or credibility to get a smart gun to market," he says. "That could undermine those of us who've been working in the area for years." In other words, he's not so eager for new rivals in a market that so far has proved nonexistent. —*Paul M. Barrett*

The bottom line Makers of biometric and RFID gun technology are skeptical of government promises given the hostility of their customer base.

Innovation

Turborockets

Form and function
By combining traditionally separate parts of a liquid-fuel rocket engine into one rotating structure, the so-called turborocket is lighter than comparable engines, its inventor says—and it's cheaper to build.

Innovator John Bossard

Age 53

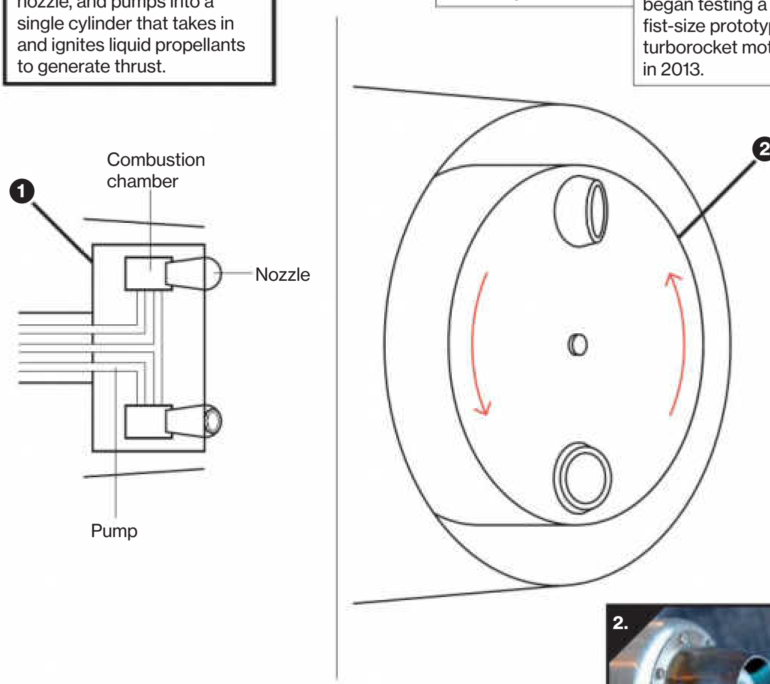
Founder and president of BSRD, an aerospace engineering consulting firm in Huntsville, Ala.

Origin In 2011, Bossard, a mechanical engineering Ph.D., began working on rotating-rocket propulsion while investigating 1950s U.S. Army research.

Early tests BSRD began testing a fist-size prototype turborocket motor in 2013.

1.

Ignition The turborocket combines the functions of a combustion chamber, a nozzle, and pumps into a single cylinder that takes in and ignites liquid propellants to generate thrust.



Clients BSRD subcontracts on projects for NASA and the Department of Defense.

Funding So far, Bossard has single-handedly supported the company with about $1 million of his own money.

2.

Thrust As exhaust gases escape from the angled nozzles, they spin the rocket. That force pumps propellants into the combustion chamber, boosting the escaping gases' velocity and increasing thrust by 50 percent.

Next Steps
Jeff Greason, co-founder of Xcor Aerospace, says the rotating-rocket technology could well prove useful, as long as BSRD can keep the engine's size comparable to conventional models. Bossard says he can do so with further development, which he expects to cost $2.5 million, and he's keeping interested Air Force researchers briefed on his progress. —*Michael Belfiore*

The Simple Truth About China’s Market

▶ **It’s not just clumsy trading rules that have made the mainland’s stocks so risky**

▶ **“They’re trying to prop the market up above sustainable valuations”**

“This is insane,” said Chen Gang, chief investment officer for Shanghai Heqi Tongyi Asset Management, on Jan. 7, the day stock trading in China lasted only 29 wild minutes before market circuit breakers shut it down. Unlike some would-be sellers that day, he says he unloaded all his firm’s equity holdings by the time the exit door closed. The circuit breakers, put in place just a few days before, called for an all-day trading halt if shares dropped 7 percent.

Those rules have taken much of the blame for China’s latest market chaos. The China Securities Regulatory Commission said they had a “magnet effect”—as shares fell, people may have rushed to get sell orders in while they still could, pulling prices down to the trigger point even faster. (Announcing last call to a bar full of drinkers tends not to encourage moderation, either.) The focus on poorly designed trading curbs may, however, distract from a less exotic source of risk: speculation.

The median stock on mainland exchanges still trades at about 57 times earnings—at least twice as expensive as any other major market. (Leading China stock indexes don’t look nearly so pricey but are weighted to financial companies, which tend to carry lower valuations.) In spite of currency instability and concerns about slowing economic growth, investors are treating the typical Chinese company as if its potential is somewhere between that of **Google** and **Facebook**.

A boom in initial public offerings made parts of the stock market look more like a lottery. Shares of **Beijing Baofeng Technology**, a developer of online video players, soared 4,200 percent in 55 trading days after going public on the Shenzhen stock exchange in March. (The stock then dropped 31 percent before suspending trading in October.) With the market crowded with novice retail investors, other companies simply renamed themselves to look like tech stocks, recalling the 1960s “tronics” and 1990s dot-com booms in the U.S. “There are stocks that are basically junk, but they’re trading at outrageous valuations because there’s a lot of market manipulation,” says Jian Shi Cortesi, a money manager at GAM Investment Management in Zurich. “The way down is always very volatile.”

China’s stock market didn’t used to be so exciting. Under President Xi Jinping’s administration, articles in state-run media encouraged people to invest, fostering a belief that the government

ILLUSTRATION BY 731; DATA COMPILED BY BLOOMBERG

would make sure everyone profited. The benchmark CSI 300 index climbed 150 percent in the 12 months before the market slide that began in June, and it's still up 53 percent from the start of that run. The nation has more than 90 million individual investors, compared with 87.8 million members of the Communist Party.

Now retail investors are having doubts. Hua Jie, a 56-year-old retiree in Sichuan province, says she hasn't been this downbeat on the nation's stock market since she began investing more than a decade ago. "I no longer want to play this game," says Hua, a former saleswoman at a consumer electronics store in Chengdu. "I've lost faith in the regulators."

Many institutional investors, too, have been quick to bail as markets turn south. Hedge funds often have agreements with investors requiring liquidation if their holdings drop below a certain value. That may have helped accelerate the early January rout.

China's securities commission suspended the circuit breakers after the Jan. 7 shutdown. Policymakers need to "gradually explore, gain experience, and make adjustment" to the system, commission spokesman Deng Ge said in a statement. Former U.S. Treasury Secretary Nicholas Brady, who's credited with implementing circuit breakers in the U.S., says the problem is that China didn't allow stocks to fall enough. In the U.S., trading is halted temporarily after declines in the Standard & Poor's 500-stock index of 7 percent and then again at 13 percent; trading is suspended for the day only if losses reach 20 percent. "The right thing to do is widen their band," says Brady.

So the circuit breaker part of the problem seems reassuringly fixable. Mohamed El-Erian, chief economic adviser at Allianz, called the turmoil in China's markets "self-inflicted wounds," arguing in a Bloomberg View editorial that "there are steps the Chinese government can take to ensure that the pain is temporary."

Eugene Fama, the Nobel prize-winning economist at the University of Chicago, says there's little evidence that rules like circuit breakers either prevent or cause volatility. "In panic selling, prices go down, and they bounce back up. I don't even know that you would want to get around that," he says.

Xi's administration is likely to keep trying. The state-controlled investment funds that the government directed to buy shares last summer–nicknamed the National Team–probably spent more than $200 billion on equities in three months, according to analysts at Goldman Sachs. Officials even bought stocks to project stability in the days before a planned 12,000-soldier parade in September to commemorate Japan's World War II surrender, according to people familiar with the matter.

Market interventions resumed in January, with buying focused on shares in companies with large weightings in benchmark indexes, the people say. Regulators also extended restrictions, which were just about to expire, on share sales by major stockholders. Even so, on Jan. 11, with the circuit breakers removed, stocks plunged an additional 5 percent. "They're trying to prop the market up above sustainable valuations. That's the fundamental problem," says Patrick Chovanec, New York-based chief strategist for Silvercrest Asset Management Group.

The unruly stock market seems to be giving the Xi administration second thoughts about its plans to loosen the reins throughout the economy. The government hasn't yielded control of the state-run companies that led China's boom or forced them to reduce their debt. "That system is going to have to change dramatically, and I don't know if the government is going to let it," Fama says. *—Zeke Faux and Bloomberg News*

The bottom line Circuit breakers may have made China's market crash move faster, but fixing them won't put an end to the volatility.

China's Still Exuberant

Price-earnings ratio of the median stock

Stocks

The IPO Aimed At Iran

▶ **Saudi Aramco could become the world's biggest public company**

▶ **The oil giant's thirst may "dry up the capital markets"**

Saudi Arabia is considering a new strategic ally in its cold war against Iran: The world's 330 million owners of publicly traded stock.

Saudi Arabian Oil confirmed on Jan. 8 that it's studying options for a possible initial public offering. Why would Saudi Aramco, as the world's biggest oil company is known, auction off part of itself amid the lowest oil prices in 12 years? Some Saudi watchers say the kingdom needs cash for economic diversification. Others believe that Deputy Crown Prince Mohammed bin Salman, King Salman's swashbuckling 30-year-old son, is hoping that outside shareholders and directors can force the state-owned behemoth to become more accountable and efficient. He's the one who first disclosed the IPO idea, in an interview with the *Economist*. "Emir Mohammed is trying to redo things very quickly, from the bottom up," says Sadad al-Husseini, who ran Aramco's exploration and production operations from 1985 to 2003.

Another explanation is the geopolitics of survival. If it includes a ▶

◀ stake in Aramco's vast oil reserves, a public sale of even a tiny fraction of the company could be the biggest IPO in history, likely dwarfing Alibaba's $25 billion share sale in 2014. The Saudi monarchy would give investors from Peoria to Shanghai a vested interest in the regime's security.

A share sale might also attract investment money that would otherwise go to competitors. "Riyadh could dry up the capital markets available to the oil industry," says Danilo Onorino of Dogma Capital in Lugano, Switzerland. "They will effectively leave others, from Mexico to shale producers, short of equity and debt access." For investors, a piece of Aramco would be prized because the company has a very low cost of production.

The chief rival on the Saudis' minds is Iran. It was probably not a coincidence that Prince Mohammed decided to drop the IPO news just two days after Saudi Arabia executed 47 prisoners, including the Shiite cleric Nimr al-Nimr, a fierce critic of the Sunni monarchy's treatment of Saudi Arabia's minority Shiites. Nimr's execution enraged Iranians, who set fire to part of the Saudi embassy in Tehran, leading Saudi Arabia and some of its Gulf Arab allies to break diplomatic relations with Iran. The standoff was quickly eclipsed, at least in the business press, by the prince's IPO bombshell. Estimates of Aramco's total value range widely, depending in part on the perceived risk of having a government as co-owner. The low could be $100 billion, using Russia's Rosneft as a benchmark; Fadel Gheit, an analyst at Oppenheimer, estimates Aramco is worth at least 15 times ExxonMobil's market value, or $5 trillion.

Iran desperately needs to jump-start its sanctions-racked economy and is trying to attract foreign investors for when its international status normalizes (page 62). The Saudi move would put Aramco ahead in the line. "Part of the financial weapon they're using here is to target fund managers and hedge funds around the world and to give them a choice of doing business with Saudi Arabia or doing business with Iran," says Mark Dubowitz, executive director of the Foundation for Defense of Democracies, a Washington advocacy group that campaigned against the nuclear deal with Iran.

Oil at $30 a barrel, the lowest in 12 years, has the Saudis under pressure

Aramco is also jostling with Iran as well as Russia to secure its market share in Asia, the fastest-growing oil-consuming region, by expanding its refinery business there. In a repeat of the strategy the kingdom used in the 1980s and '90s to secure U.S. market share by investing in refineries in Texas and Louisiana, Aramco is putting money into plants from China to Indonesia. Asia accounts for almost 70 percent of Saudi Arabia's oil exports, according to the U.S. Energy Information Administration.

Industry analysts and Saudi watchers say Aramco might decide not to sell shares in the full company and instead let investors buy into these refineries and other downstream assets. The proceeds of a downstream IPO could fund more refineries, bolstering the kingdom's international relationships.

An IPO could surpass Alibaba's record $25 billion offering

"The kingdom's refining ties promote deeper integration with powerful importing countries," says Jim Krane, energy research fellow at the Baker Institute at Rice University in Houston. "Those countries, in turn, are becoming stakeholders in Saudi Arabia's stability and security."

With oil prices down and the Saudi budget deficit way up, plus a costly war in Yemen that isn't going very well for Saudi Arabia, the money from a share sale would be welcome. But the backdrop for the Saudis' thinking today is their sense that they've been cut loose by the U.S. after last year's international nuclear agreement with Iran, says Dov Zakheim, a former U.S. under secretary of defense under President George W. Bush. Saudi Arabia joined Israel in lobbying against the accord. One thing "they never envisioned was that the Americans would let them down," says Zakheim, "and that's what they perceive has happened." —*Peter Waldman, Javier Blas, and Matthew Philips*

The bottom line Taking Saudi Aramco public would help the government in Riyadh strategically. The country could also use the cash.

A State-Run Giant

Each day, Saudi Aramco refineries process

3.1m

barrels of oil. The company's oil reserves are worth

$2t

contributing to Aramco's potential market value of

9x

that of $555 billion Apple, the biggest public company

DATA: BLOOMBERG INTELLIGENCE, OPPENHEIMER

Real Estate

Your Uber Driver Has a House to Show You

▶ A slow Singapore housing market leaves agents scrambling for work

▶ Driving a private car "is the best trade for a property agent"

Billy Loh began selling real estate in Singapore in 2008, setting himself on what was widely seen as a path to wealth. Now he spends his working days navigating the city streets. Loh became a driver for **Uber Technologies**. "We have no choice. We have to come up with means to make ends meet," says Loh, as he drives a Toyota Corolla he began renting in October.

Singapore's home prices fell by 4.3 percent over the 12 months ended Sept. 30, the most among the world's major markets, according to the Knight Frank Global House Price Index. The city-state remains Asia's second-most

expensive luxury market (after Hong Kong), but a plunge in sales volume—down 68 percent since 2012—is hitting property agents hard.

It's part of a plan: Seven years ago, the government began stepping into the real estate market to tame prices. The so-called cooling measures include restrictions on how much debt homebuyers can take on, as well as stamp duties to be paid by both buyers and sellers. Prices have been falling since 2013, the worst losing streak in 17 years, prompting calls to lift the measures.

Loh took up driving after going half a year without doing any property deals. He says he now earns an average S$3,000 ($2,092) a month. During the market's heyday, he could nab a commission of up to S$30,000 from a single home sale.

Across the globe, people in the real estate business often must juggle several jobs—it's a notoriously cyclical business. Singapore's property agents have the added problem of unusually intense competition. There are more than 30,000 registered agents, or an average of 10 for every property transaction each month, according to the Institute of Estate Agents in Singapore. By contrast, the Australian state of New South Wales has 1,840 agents to handle an average of 8,160 monthly transactions in Sydney alone, according to CoreLogic.

Smartphone-centric ride-hailing companies such as Uber, which began operating in Singapore in 2013, and GrabCar, a private car service created last year by taxi booking app maker **GrabTaxi Holdings**, are attracting property agents to their quickly swelling ranks of drivers, say managers from both companies. The number of rental cars, a rough proxy for vehicles being used for private car services, has increased 51 percent over the past 12 months, according to Singapore's Land Transport Authority.

Terence Tham, a nine-year veteran of real estate sales, decided that driving his Honda Civic for Uber could help him increase his client network. He hands out a business card for his other job to every passenger he meets on his 6 a.m.-to-midnight shift. He says he needs all the leads he can get: "This has been one of the worst years for me in the property broking business."

"This has been one of the worst years for me in the property broking business"

With further sales declines expected in 2016, Singapore's industry group for agents is trying to help them find steady supplemental work. It's offering courses in property management and other skills. That would "at least earn a fixed income rather than only rely on commissions in this market," says Jeff Foo, president of the Institute of Estate Agents.

For agents in need of a new source of income, though, driving looks like a fast, flexible option, even if it means long hours behind the wheel. Ronald Han, a driver since July, says he works 50 to 60 hours a week driving to earn S$2,800 to S$3,200 a month, after fuel, maintenance, and other costs.

He's trying to hang on to his old job, too. "This is the best trade for a property agent, you see?" Han says. "You can have free time if you have an appointment." —*Pooja Thakur and Christopher Langner*

The bottom line After a government-engineered slowdown, there aren't enough real estate deals to support Singapore's 30,000 registered agents.

Buffettology

Berkshire Could Be Headed for a Buyback

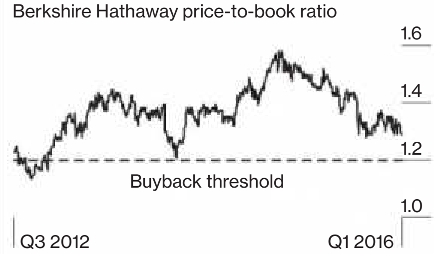
▶ **The stock's low price puts it closer to a threshold**

▶ **Warren Buffett has been "laying the groundwork" for years**

Shares in **Berkshire Hathaway**, the conglomerate headed by Warren Buffett, have slumped 14 percent over the past 12 months, compared with a 5 percent drop for the Standard & Poor's 500-stock index. By itself, one weak year doesn't mean much—even Buffett has had his dry spells. (In 1999, Berkshire trailed the dot-com-smitten market by 41 percentage points.) Berkshire's current low price, however, raises an interesting new possibility for investors: The stock is

Getting Back to Value

Berkshire Hathaway price-to-book ratio



DATA COMPILED BY BLOOMBERG

hovering near the point where Buffett has signaled he'd be willing to buy back shares.

Buffett, who has run Berkshire for more than 50 years, has largely avoided any move to return cash to shareholders. Instead of paying dividends, he's reinvested profits to transform a struggling textile maker into a sprawling collection of companies ranging from insurers to a railroad, plus a portfolio of publicly traded stocks worth $110 billion. A big exception came in 2012, when Buffett's company spent more than $1 billion on buybacks, largely from the estate of a longtime shareholder who wasn't identified. At that time, the company said it could buy shares for no more than a 20 percent premium to its book value, a measure of assets minus liabilities.

Berkshire's book value probably climbed to $154,292 per share at the end of 2015, according to an estimate from Keefe Bruyette & Woods. Class A shares in the company changed hands for $194,000 on Jan. 12. That puts it at about a 25 percent premium to book.

Buffett is an icon of value-minded stockpickers, so any move to buy shares would likely be greeted as a sign the shares are a bargain. Who'd want to sell when Buffett is buying? A buyback would help "mop up shares that are in awkward hands," explains Tom Russo, who oversees holdings that include Berkshire shares at Gardner Russo & Gardner. These might include the estate of a longtime shareholder needing to settle a tax bill or a charity that wants to unload appreciated shares to fund its work. (A dollar invested in Berkshire in 1965 has grown to $15,600, vs. less than $110 for the S&P.) A buyback could be a ▶

PAUL MORIGI/GETTY IMAGES

Bid/Ask

By Caroline Winter

$3.5b

***Jurassic* studio is bought by Asia's richest man.** Chinese billionaire Wang Jianlin has agreed to purchase Legendary Entertainment, producer of *Jurassic World*, *Godzilla*, and the Dark Knight trilogy. Wang's Dalian Wanda Group also owns the No. 2 U.S. movie-theater chain and is building the world's biggest studio-plus-theme park. The acquisition will create the world's largest film company by revenue.

$32b	**Ireland's Shire bags Illinois-based Baxalta.** After a six-month pursuit, the pharma giants will merge to create the world's leading maker of drugs for rare diseases, such as hemophilia.
$1.86b	**Canada's Corus Entertainment almost doubles in size.** The Toronto media business is buying Shaw Communications in Calgary to add 45 TV channels and 39 radio stations.
$1.5b	**Kakao makes an offer for a K-pop streaming business.** South Korea's chat app leader is looking to acquire Loen Entertainment, operator of the Spotify-like MelOn music streaming service.
$1.28b	**Airbus breaks a sales drought.** Japan's All Nippon Airways will buy three A380s. It's a vote of confidence in the gigantic passenger jet, which hasn't won a new customer in three years.
$93m	**A Chinese billionaire buys Grindr.** Zhou Yahui's gaming company, Beijing Kunlun Tech, acquired 60 percent of the gay dating app, which boasts 2 million daily visitors in 196 countries.
$85m	**Sotheby's wins a private art advisory firm.** The acquisition of Art Agency Partners will lend the auctioneer muscle to improve struggling contemporary art sales.
$16.5m	**Under Armour makes a 10-year deal to outfit Yale's Bulldogs.** Although not officially disclosed, the terms were confirmed by someone with knowledge of the transaction.

◀ way for those owners to take some money off the table without having an impact on the market price.

The expectation of a buyback might also help set a floor under the stock price—fewer shares means each one is more valuable. Still, there's a question of how much cash Buffett would be prepared to spend. S&P is reviewing whether to cut Berkshire's credit rating, asking how the company will pay for its planned purchase of aerospace equipment maker **Precision Castparts**. Buffett has said he sold some stocks in 2015 partly to help pay for the $32 billion acquisition. Even if Berkshire stock falls further, Buffett might prefer to use any available cash to make other deals.

The gradual move to buybacks is also a reminder that Berkshire's growth is inevitably slowing. In a letter to investors last year, Buffett said that a decade or two in the future, the company's earnings will be so great that it won't be possible to intelligently deploy all its funds back into the business. "If Berkshire shares are selling below intrinsic business value," he wrote, "massive repurchases will almost certainly be the best choice." Intrinsic value is a subjective estimate of the cash that can be taken out of a business in its lifetime; Buffett has called book value a decent, though conservative, stand-in for that gauge.

Regularly buying back stock or paying dividends would "signal the end of an era" at Berkshire, says David Rolfe, chief investment officer for Wedgewood Partners, a St. Louis-based money manager whose investments include Berkshire stock. Buffett and Vice Chairman Charles Munger "have been laying the groundwork" for that event for years, Rolfe says. "Back in the day, they had a ton of ideas and not enough money. These days, they have not enough ideas and a ton of money."

Rolfe adds that this is a high-class dilemma: "Every Fortune 500 company would love to have this problem." —*Noah Buhayar*

The bottom line Berkshire Hathaway stock is getting near the price where Buffett would be willing to take it off investors' hands.

Edited by Pat Regnier
Bloomberg.com

BID/ASK ILLUSTRATIONS BY OSCAR BOLTON GREEN

Strategy gives you direction.
Technology lights the way.
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Better Living Through Robots

▶ Economists debate whether automation and technology are the way out of a productivity rut

▶ "The speed of current breakthroughs has no historical precedent"

Robert Gordon, an economist at Northwestern University, likes to play a game he calls Find the Robot. As he goes about his everyday life—shopping, traveling through airports—he looks for machines performing tasks that humans once handled. Most of what he sees doesn't impress him. ATMs, self-checkout kiosks, and boarding pass scanners have been around for years. Beyond that, not a lot has changed. "It's very hard for robots to do things that are extremely ordinary for humans," Gordon says. "Turns out that teaching machines to do something like folding laundry is almost impossible."

IBM's supercomputer Watson made history four years ago when it beat two contestants on the quiz show *Jeopardy!*, yet for most of us artificial intelligence is still the stuff of sci-fi movies. And even though there's lots of talk about drones and driverless cars, how close are they really to changing how we live? To listen to Gordon, not very. "I see stasis everywhere," says the scholar, whose new book, *The Rise and Fall of American Growth*, posits that the U.S. economy's best days are behind it. "Stasis in the way offices work, stasis in the way retailers work, and stasis in the way factories produce goods."

Gordon's pessimism stands in sharp contrast to the upbeat theme of this year's annual meeting of the World Economic Forum in Davos: Mastering the Fourth Industrial Revolution. It suggests we're on the cusp of a transformative era that will rival those triggered by the introduction of the steam engine, electrification, and computers. "The speed of current breakthroughs has no historical precedent," proclaimed WEF founder Klaus Schwab in a December post on the website of *Foreign Affairs*, in which he name-checked a slew of emerging technologies, including 3D printing, quantum computing, and autonomous vehicles. "When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace."

Apparently it's moving so fast that it has yet to make a mark on economic data. The one place where you'd expect to see the impact of all of these advances is in labor productivity, which in the U.S. at least has been mired in a decade-long slump. Over the course of history, breakthroughs such as electrical motors and computers have enabled workers to produce more goods and services than they otherwise could for a given number of work hours. Annual productivity growth in the U.S. averaged 1.5 percent from the first quarter of 2008 through the same period in 2014. That's less than half the 3.5 percent rate during the previous boom, which lasted from 1996 to 2003.

The data have become fodder for a lively debate about the potential of new technologies to lift growth. On one side are pessimists such as Gordon and Tyler Cowen, an economist at George Mason University and the author of *The Great Stagnation*, a 2011 best-seller whose thesis is summed up in its subtitle, which in part reads: *How America Ate All the Low-Hanging Fruit of Modern History*. Another member of this camp is John Fernald, an economist at the Federal Reserve Bank of San Francisco who's considered an expert in measuring technology's contribution to productivity. In a 2014 research paper, Fernald made the case that even ▶

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Inventing the Future

1781 Scotsman James Watt patents a rotary motion steam engine.

1830 The Liverpool & Manchester railway begins regular commercial service.

1844 The Morse telegraph enters commercial use.

1876 Alexander Graham Bell develops the telephone.

1878 Thomas Edison creates the incandescent lightbulb.

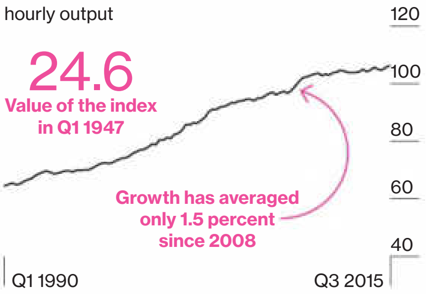
1886 Karl Benz is granted a patent for a combustion engine for "auto-mobiles."

1907 Leo Baekeland makes Bakelite, the first thermosetting plastic.

1913 Ford Motor engineers the first moving assembly line for autos at its Highland Park facility in Michigan.

Productivity: Leveling Off

Index of U.S. nonfarm business sector hourly output



DATA: BUREAU OF LABOR STATISTICS

◀ though IT industries contributed greatly to the productivity boom of the late ’90s and early 2000s, IT-related productivity then slowed dramatically. “If you look at the future through the lens of the past, it’s very hard to see anything other than continued incremental, modest gains,” Fernald says. In other words, productivity booms are more the anomaly than the norm. “We’re simply reverting back to a lower mean,” he says.

On the other side are optimists best represented by Erik Brynjolfsson and Andrew McAfee, the authors of *The Second Machine Age*, who are confident that another golden age lies ahead. The two argue that it takes time for methods of production to adapt to new technologies, which is why their effects aren’t immediately visible in productivity stats. In their book, published in 2014, Brynjolfsson and McAfee reference Paul David, an economic historian. After digging through records of American factories when they were first electrified, around the turn of the 20th century, David found it took several decades for plants to retool to optimize the new source of power. Writes Brynjolfsson: “Only after 30 years—long enough for the original managers to retire and be replaced by a new generation—did factory layouts change.” In other words, it wasn’t electricity but the eventual shift to assembly-line production that eventually kicked off a productivity boom.

Brynjolfsson says companies are in the early stages of figuring out how to retool their processes to take advantage of digital tools such as big data and machine learning. He also says our current method of measuring gross domestic output, and by extension productivity, does a poor job of capturing the value of free goods. “If you’re giving an app away for free that does something you used to pay for, then it’s going to initially make GDP smaller,” Brynjolfsson says.

Hal Sirkin, a senior partner at Boston Consulting Group, points out that robots currently perform only about 10 percent of manufacturing tasks. “We project that over the next 10 years, that might increase up to 20 or 25 percent. So there is a long way to go on that productivity curve.” Sirkin and his colleagues at BCG forecast that by 2025, wide-scale adoption of advanced robots will increase productivity as much as 30 percent in some industries, including machinery and appliance manufacturing, and lower total labor costs 18 percent.

Whatever you believe about technology’s role in productivity, there’s broad consensus that the outlook for unskilled workers isn’t good. In a speech this November, Bank of England Chief Economist Andy Haldane said he and his staff had modeled the effects of automation on the U.S. and U.K. labor markets and concluded that 80 million jobs in the U.S. and 15 million in the U.K. were at risk.

A BCG report from September 2015 that examined the impact advanced technology could have on Germany’s manufacturing sector concluded that if 50 percent of companies adopted new tools such as autonomous robots and 3D printing by 2025, industrywide revenue could rise 1 percent, leading to an additional 350,000 jobs. If revenue were to rise only 0.5 percent, however, the result would be a net loss of 40,000 jobs. “It’s a real possibility that if we do nothing, that inequality can get worse and more people end up getting left behind,” Brynjolfsson says. “But it’s not inevitable, and it comes down to a set of policy decisions we make. If through technology we can create more and more wealth for less and less work, then shame on us if that’s a bad thing.” —*Matthew Philips*

The bottom line Tech boosters say automation and other digital innovations haven’t penetrated enough to show up in economic data.

The Guest List

Who’s Who and Who’s Not at the WEF

▶ **China, Saudi Arabia, and the U.S. are sending high-level emissaries**

▶ **“Geopolitical risks are becoming much more relevant”**

The organizers of the World Economic Forum want attendees to focus on the challenges of the future: The theme of this year’s annual meeting is Mastering the Fourth Industrial Revolution, a catchall rubric that describes advances in technologies such as artificial intelligence and robotics. The problems of the here and now, though, are likely to be a more popular topic of discussion.

Among the assembled politicians, chief executive officers, and financiers will be several key players in simmering global crises—China’s stock market meltdown, the emerging cold war between Iran and Saudi Arabia, and Russia’s economic slump. The gathering is taking place a couple of weeks after billionaire George Soros, a Davos stalwart, warned that the China-induced turmoil in financial markets is starting to remind him of “the crisis we had in 2008.” Others are also voicing concerns. “This is a very stressful time,” says John Veihmeyer, global chairman of consulting

1916 Clarence Birdseye pioneers a flash-freezing system for preserving food.

1933 Boeing introduces the twin-engine, 10-passenger 247, the first modern commercial airliner.

1934 E.I. du Pont de Nemours creates nylon.

1942 Enrico Fermi and colleagues at the University of Chicago achieve the first controlled, self-sustaining nuclear chain reaction.

1947 A team at Bell Labs invents the transistor.

1955 IBM engineers design the first disk drive for random-access storage of data.

1958 Engineers at Texas Instruments and Fairchild Semiconductor independently develop the integrated circuit.

FROM LEFT: COURTESY SAN DIEGO AIR & SPACE MUSEUM ARCHIVE; SANTA CRUZ SENTINEL/ZUMA PRESS; SSLP/GETTY IMAGES; KARSTEN LEMM/DPA/CORBIS; GETTY IMAGES

Economics The Seers of Davos

Many of the financiers and executives who frequent the World Economic Forum pride themselves on their ability to divine the future. Here's a look at which 2015 predictions hit the mark and which were misses. —*Simon Kennedy*

On inflation

UBS Group Chairman **Axel Weber** said euro area inflation would stay well below the European Central Bank's target of just under 2 percent, despite quantitative easing. The annual rate fell to 0.2 percent in December.

Right

On oil

Wrong

Abdalla el-Badri, the secretary-general of OPEC, said oil would stabilize around $45 to $50 a barrel. It closed the year at $37.

On the dollar

Ray Dalio, founder of the hedge fund Bridgewater Associates, was on the mark when he forecast a "short squeeze" would boost the greenback. The dollar did strengthen, gaining 11 percent against the euro.

Right

On the Fed

Morgan Stanley Chief Executive Officer **James Gorman** said he would "put good money on a rate hike this year," but he bet it would come in the second quarter. The Fed made its move in December.

Wrong-ish

company KPMG, who's heading to Davos. "Geopolitical risks are becoming much more relevant, and concern about them is accelerating."

Undoubtedly one of the most in-demand guests at this year's forum, which runs Jan. 20-23, will be Fang Xinghai, vice chairman of the China Securities Regulatory Commission, who has the unenviable task of supervising the gyrating stock markets of the world's No. 2 economy. He's appearing on the second day of the conference, at a panel discussion on how China's economy can "shift gears without stalling"; it also features Ray Dalio, founder of the hedge fund Bridgewater Associates, and Christine Lagarde, managing director of the International Monetary Fund.

Russia, another country looking to retain the confidence of international investors, is also well-represented. It has dispatched central bank Governor Elvira Nabiullina, who is joined by executives from state-controlled lenders **OAO Sberbank of Russia**, **VTB Bank**, and **Vnesheconombank**–all still under U.S. and European sanctions. Nabiullina is participating in a Jan. 23 session on the global debt dilemma, a suitable topic for a country trying to contain a ballooning budget deficit.

Davos attendees hoping for insight into the spiraling conflicts in the Middle East are unlikely to be disappointed. Iranian Foreign Minister Mohammad Javad Zarif, who led his country's talks with world powers to win a nuclear deal, will be wandering the halls of the Congress Centre. It may be hard for him to avoid bumping into officials from archrival Saudi Arabia, including Prince Turki Al Faisal Al Saud, the kingdom's former intelligence chief and onetime ambassador to Washington, who is headlining a panel on understanding Islam.

Eager not to miss a chance to buttonhole so many key negotiating partners in its last year in office, the Obama administration is dispatching its most high-ranking delegation to Davos. Vice President Joe Biden will be accompanied by John Kerry, Jacob Lew, and Ashton Carter–the secretaries of state, the Treasury, and defense, respectively.

The Americans won't get an opportunity to press North Korea to abandon its nuclear-weapons ambitions during their visit. An invitation for the reclusive state's leaders to attend was rescinded after it tested what it claimed was a hydrogen bomb earlier this month.

Traditionally, Davos has been embraced as a platform for rebranding by companies and governments seeking to burnish their reputations, and this year is no exception. Argentina's new president, Mauricio Macri, is headed to the conference along with his finance and foreign affairs ministers, to try to convince investors that his country, which has defaulted on its debts at least seven times, has turned an economic corner.

Further star power will be supplied by Justin Trudeau, Canada's new prime minister and a reliable selfie magnet. He's leading a much larger than normal delegation of ministers, mayors, and executives from the U.S.'s largest trading partner, and he's also joining a panel on gender parity in the economy, along with Melinda Gates, co-founder of the Bill & Melinda Gates Foundation, and Facebook's Sheryl Sandberg, both Davos regulars. —*Matthew Campbell*

The bottom line The turmoil in China's financial markets and instability in the Middle East will be among the topics commanding attention in Davos.

Real Estate

How to Beat Inflated Davos Rents? Buy

▶ **Apartment prices in the town have fallen 15 percent since 2012**

▶ **"A strong franc is poison. We've lost most of the foreign buyers"**

The financiers and captains of industry paying premium prices to bed down in Davos in January may not notice, but apartments in the Swiss town that hosts the annual meeting of the World Economic Forum are starting to look like a bargain.

Prices for holiday homes have dropped as much as 15 percent in ▶

1960 Digital Equipment introduces the first "compact" computer, priced at $125,000 without software or peripherals.

1964 British engineer Leslie Phillips makes carbon fiber.

1964 Two professors at Dartmouth develop the BASIC computer programming language.

1970 The first CD-ROM is patented by James Russell.

1971 Intel introduces the 4004 four-bit microprocessor, which it dubs a "computer on a chip."

1972 E-mail is pioneered on the Arpanet network, using the @ sign in a message address.

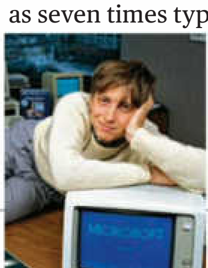
1981 The IBM Personal Computer goes on sale.

1982 The Federal Communications Commission approves commercial cellular phone service.

You won't find many chalets in Davos, which relies more on conferences than do other resorts

the past three years, according to Swiss bank UBS. Supply is up because of a building boom, while a strong Swiss franc is damping demand from foreigners. The franc gained 9 percent against the euro in the past year, spurring those in the market for a second home to consider luxury properties in France or Austria instead. "It's very unpleasant being a property investor in Davos at the moment," says UBS analyst Matthias Holzhey, who says he expects prices to fall an additional 5 percent in 2016. "A strong franc is poison. We've lost most of the foreign buyers."

That's not having much impact on room rates during the WEF, which runs Jan. 20-23. Prices for Davos vacation rentals during the rest of the ski season have fallen about 10 percent this year as foreigners shy away from the strong franc, but they've held steady for the week of the forum, the local tourist office says. Real estate agency **Markutt Treuhand** has rented about 150 places in the town, ranging from 3,000 francs ($2,980) to 50,000 francs for the week, as much as seven times typical winter prices.



On **Airbnb**, a two-bedroom apartment in nearby Klosters is listed for 770 francs a night, about five times the normal rate. "There's nothing available for the WEF week," says Gregor Lo Presti, a snowboarding instructor who's managing reservations for a half-dozen flats.

Prompted by concerns about price gouging, the forum's organizers in 2014 introduced a list of hotels that agreed not to raise rates more than 10 percent during the event, though the group says many owners haven't added their name to it. "We want to make sure hotels are not pricing out people who want to participate," says Adrian Monck, the WEF's head of public engagement. "We have people coming from civil society, academia, the media, and they want to stay in reasonably priced places."

To guard against unbridled development, Swiss voters in 2012 approved a ballot measure limiting second homes to no more than 20 percent of the housing stock in any municipality. A building frenzy ensued as developers rushed to complete projects before the law took effect this month. Last year 1,140 apartments were listed for sale in Davos, 27 percent more than in 2014.

Although luxury home prices in Davos are about half what they are for similar places in St. Moritz or Zermatt, sales have been slow. Broker Sascha Ginesta has sold only one of the four apartments in a complex called Mountain Rock, which was completed in 2012, with units ranging from 1.8 million francs for three bedrooms on the ground floor to 4.6 million francs for a four-bedroom penthouse featuring vistas of the snowy peaks. Christian Fross, another broker, recently sold a two-bedroom flat that had been on the market for nine months after cutting the price 10 percent, to 1.5 million francs. "The market is stopping because sellers are asking too much," he says. "It's like a bubble."

An ongoing concern for landlords: One big annual meeting abandoned Davos last year, and the WEF's agreement with the town is up for review in 2018. Dominated by its massive conference center and large apartment blocks, Davos lacks the charm of many smaller Swiss towns with their quaint chalets and wood-framed houses. So it can ill afford a big drop-off in the convention business, says Adrian Dinkelmann, the local economic development chief. "We were already expensive compared to other international destinations," he says. With the strong franc, "now we're facing even more competition."
—Dalia Fahmy and Roxana Zega

The bottom line WEF attendees still pay top dollar for Davos lodgings, but apartment prices in the town are falling after a building boom.

Edited by Cristina Lindblad
Bloomberg.com

TOP: SIMON DAWSON/BLOOMBERG. BOTTOM, FROM LEFT: DEBORAH FEINGOLD/CORBIS; COURTESY DARPA; TONY AVELAR/AFP/GETTY IMAGES; RONALD GRANT ARCHIVE/MARY EVANS/EVERETT COLLECTION

1985 Microsoft releases Windows 1.0.

1991 The World Wide Web becomes available to the general public.

1998 Two Stanford Ph.D.s incorporate Google.

2002 Amazon.com begins its foray into cloud computing.

2004 Darpa's Grand Challenge for self-driving cars draws 15 entrants. (Not one manages to complete the 142-mile course.)

2007 The Apple iPhone debuts.

2011 IBM's Watson defeats two humans on the quiz show *Jeopardy!*

2015 GE engineers 3D-print a mini jet engine.

And What's Next

THE UN

A BUNGLED MERGER. A CORRUPTION SCANDAL. THREE CEOs IN A YEAR. BUT HEY, AT LEAST THE SNACKS ARE FREE AGAIN

ITED WAY

BY DRAKE BENNETT

ILLUSTRATION BY THE RED DRESS

Early last summer, a team at United Airlines set out to discover what bothered its passengers most. The airline collects 8,000 customer surveys a day, and there was a lot to choose from: Was it extra fees for luggage? The lack of legroom? The sour, thin coffee? Was it being forced to spend 20 hours in a frigid military barracks in Newfoundland (as passengers on a United flight to London did last June)? How about the carrier's tendency to lose the one bag you really need? (On June 17, 2014, Rory McIlroy tweeted: "Hey @united landed in Dublin yesterday morning from Newark and still no golf clubs… Sort of need them this week.") Could it be the problems with the reservation system that caused widespread delays in 2012, and again in 2014, or the computer glitch on July 8, 2015, that led the airline to suspend all its flights, all over the world, for two hours? In October, United failed to provide a wheelchair to a passenger with cerebral palsy; he had to crawl off the plane.

Every airline has its horror stories, of course—air travel is full of opportunities for customer disenchantment. But United has proved an industry leader: On all major performance metrics—delays, cancellations, mishandled bags, and bumped passengers—United has, since 2012, been reliably the worst or near worst among its competitors. In 2012, according to the U.S. Department of Transportation, United was responsible for 43 percent of all consumer complaints filed against U.S. airlines. It finished last among North American nondiscount airlines in the 2015 J.D. Power & Associates customer satisfaction survey. Recently the carrier agreed to pay $2.8 million in fines for tarmac delays and the poor treatment of disabled passengers. "United is off-the-charts worse than anything I've ever seen," says Lenny Mendonca, a retired senior partner at McKinsey. Despite having flown more than 3 million miles with the airline, he says, "If I have any other alternative, I will fly someone else."

It's been five years since United Airlines and Continental Airlines combined to form what was at the time the world's largest carrier, and the merger hasn't gone well. In 2012 and early 2014, when American Airlines Group, Delta Air Lines, and Southwest Airlines reported large, and in some cases, record profits, "the new United" lost money. Earnings calls became an opportunity for then-Chief Executive Officer Jeffery Smisek to apologize. "I know we created some customer disservice because of all the changes we made so quickly, and I apologize for that," Smisek said in July 2012. "We know we can do better and are taking actions to do just that," he promised in April 2014.

For the CEO, however, things got worse. Last September, Smisek resigned along with two other top executives as the Department of Justice investigated whether the airline had tried to improperly influence the Port Authority of New York & New Jersey, which operates the region's major airports. One month later, Smisek's successor, Oscar Munoz, suffered a heart attack and went on medical leave. On Jan. 6 he had a heart transplant. Although United promises he'll return "at the end of the first quarter or the beginning of the second quarter of 2016," no one can deny that a company that had long endured calls for a shake-up has been well and thoroughly shaken in a way that has both complicated and catalyzed its efforts to reintroduce itself to the world.

FLY THE HOSTILE SKIES

June 30, 2012
Where's My Daughter?

No one from United shows up to meet 10-year-old Phoebe Klebahn when she arrives at O'Hare traveling as an unaccompanied minor. She misses her connecting flight, and her parents locate her only after a series of desperate calls to the company.

"We've been out front acknowledging that, 'Hey, it would have been great to get it together before year five,'" says Brett Hart, United's general counsel and interim CEO. But the airline, he insists, is getting it together now: United's numbers for on-time arrivals, cancellations, and baggage handling in recent months have been the best since the merger. "People see the planes coming in and going out on time," he says. "Employees' interactions with customers are different. Our customers' response to the service is improving. People are saying, 'You know, this feels like a new day.'" The second quarter of 2015 was the airline's most profitable ever, with $1.3 billion in net income, excluding special items. In the third quarter, it climbed to $1.7 billion.

There have been false dawns before in the long saga of the United and Continental merger—it's the Zeno's paradox of mergers, never quite reaching the destination. Despite its record profits, the airline has still struggled to grow—year-over-year, revenue was down 4 percent in the second quarter of 2015 and 2.4 percent in the third. The improvements the airline has made have, in many ways, simply brought it back to where it began. After its "customer experience" team went through the complaints from last summer, it settled on a straightforward problem: the complicated boarding process United put in place in 2013, which it says it has fixed and will update soon. "It's primed for improvement," says Vicki Bryan, a transportation analyst at Gimme Credit who's been particularly critical of United. "But I still see this company very much in limbo."

Connie Garcia works in customer service for United at Newark Liberty International Airport. Her sister also works there, as does her husband, in facilities management. "It's sort of a family business for me," she says. She remembers hearing customers cheering in the terminals on Sept. 8. Curious, she asked around and learned that Smisek was stepping down. Gloria Reid, a flight attendant supervisor, was downstairs in the Newark crew lounge, where she says an impromptu party broke out. "Everybody was very happy," she says, "extremely happy."

The events that led to Smisek's resignation took place a year after he became CEO of the merged airline. In September 2011, he and two of his senior government affairs executives had dinner with David Samson, the Port Authority chairman, at a Manhattan trattoria called Novita. Smisek was pushing Samson to make hundreds of millions of dollars' worth of improvements at United's Port Authority-operated

CEO TRACKER

Resigned CEO Smisek didn't want United "to marry the ugly girl"

Hart claims people are saying, "You know, this feels like a new day"

Munoz received a new heart on Jan. 6. He's due back this spring

COURTESY UNITED (3)

Newark hub. As reported last spring by Bloomberg, Samson asked for a favor in return: He wanted the new United to restore a discontinued Continental flight from Newark to Columbia, S.C., a short drive from a vacation house Samson and his wife owned.

Over the following months, Samson reiterated his request several times and said he was blocking the airport improvements. United added back the unprofitable flight. The "chairman's flight," as Samson liked to call it, was scheduled perfectly for his weekend trips and might have remained another obscure bit of New Jersey horse-trading if not for the Bridgegate scandal, which followed the intentional snarling of traffic in Fort Lee, N.J., by Port Authority officials and aides to New Jersey Governor Chris Christie to punish a local politician. Four days after Samson resigned, in March 2014, for his role in the traffic problems, the chairman's flight was discontinued.

Sept. 3, 2012
Where's My Dog?
Beatrice, fashion model Maggie Rizer's golden retriever, leaves Newark aboard a United flight. She dies before reaching San Francisco.

The U.S. attorney for New Jersey hasn't brought charges against anyone at the carrier, but the company's announcement made it clear that Smisek and the two other United executives at the dinner, Nene Foxhall and Mark Anderson, were stepping down because of United's own internal investigation. Smisek left with a severance package worth $28.6 million. Smisek, Foxhall, and Anderson didn't respond to repeated requests for comment.

Smisek, an attorney, had been part of the team that turned around the struggling Continental in the 1990s. Three months after being named that airline's CEO, in January of 2010, he interrupted merger talks between United and US Airways to propose Continental as a better partner. "I didn't want him to marry the ugly girl," Smisek said of Glenn Tilton, then United's CEO, a comment for which Smisek apologized to US Airways CEO Doug Parker, who now runs American.

People who worked closely with Smisek describe him as funny and extremely smart but also reserved and, on occasion, tone-deaf. One former Continental colleague remembers Smisek getting up from the table after a meeting with pilots union representatives and immediately pulling on the leather gloves he used to drive his Porsche. Bryan, the Gimme Credit analyst, argues that Smisek's aloofness paralyzed his management team and made them slow to see problems developing. "You have an elitist culture problem," she says. "And who is content to work for this kind of culture? Not the kind of person who's going to step up and say, 'We need to do it like this.' No, they're going to do what Jeff says."

July 9, 2012
Heavy Lifting
United reports that a computer breakdown caused a flight to take off 20,000 pounds heavier than pilots believed because erroneous data indicated that the coach section of the plane was empty.

Many of the merged airline's front-line employees complained that management, having promised significant savings to Wall Street, focused on cutting costs above all else. There were layoffs, furloughs, and baggage handling and gate agent jobs were outsourced. Former Continental employees say they'd been discouraged from giving out vouchers to placate unhappy customers who had been bumped from their flights, though United says they hadn't been. Even the new airline's uniforms seemed the result of cost-cutting. "There were a lot of complaints about the quality of the uniform," Garcia recalls.

The depth of employee discontent helps explain the merged airline's poor performance. "Unhappy mechanics do not tend to go the extra mile—or the extra foot—to get the airplane ready to go," says George Ferguson, a Bloomberg Intelligence airline analyst. Longtime fliers noticed the delays, cancellations, and lost bags—and the short-tempered gate agents and flight attendants. "As individuals, they are really nice people," says Jared Spool, a Web design consultant who flies 150,000 miles a year on the airline. "But they are in such a horrible situation, constantly trying to deal with customers that are not happy, and they're completely powerless."

Some of the problems that have bedeviled the merged airline were inherited. During a brutal three-year bankruptcy that ended in 2006, United slashed salaries, defaulted on its corporate-pension plan, and stopped upgrading facilities and replacing planes, leaving a deeply embittered workforce and one of the oldest fleets in the business. Everything from baggage handling to aircraft reliability suffered. And even today, some labor issues remain beyond the company's control. The former Continental and United flight attendants, the only work group currently without a preliminary joint contract, are sharply divided over whose work rules to adopt. Until they decide, there's little United can do.

One thing Smisek and his executive team clearly neglected was ensuring that flights left and landed on time, and building in allowances for the storms and mechanical failures that inevitably occur. Delta, by contrast, set out after its 2008 merger with Northwest Airlines to eliminate flight cancellations unrelated to storms and largely succeeded. The extensive tech problems of the United-Continental merger were also avoidable. Rather than combining the carriers' reservations systems, websites, and frequent-flier programs over time, the company merged all three on the same day, maximizing disruption and confusion. And in adopting the passenger service system from Continental, the smaller of the two airlines, United had to train a much larger number of people to use different software. In the end, that training proved inadequate. Continental's scheduling program, when adopted by the merged airline, lost track of pilots, leading to flight cancellations, and assigned flights to pilots who were retired or dead.

July 14, 2014
No-Fly Zone
A flight from San Francisco to Hong Kong is canceled after security teams are unwilling to reinspect a plane tagged with menacing graffiti on the fuselage. Flight attendants refuse to fly and are later fired.

An incident on July 14, 2014, crystallized the lack of trust between United employees and management. A flight was about to depart San Francisco for Hong Kong when menacing graffiti—the words "bye bye" and two crude faces—were found

scrawled in oil on the fuselage. The flight attendants on board refused to fly unless the plane was given a full additional security sweep—Malaysia Airlines' Flight 370 had gone missing four months earlier. United's flight operations, safety, and maintenance teams, along with the plane's pilots, responded that it had already been thoroughly checked. The standoff ended with the cancellation of the flight, and the flight attendants were fired for insubordination.

At 3:30 p.m. Central time on Sept. 8, United alerted analysts of a conference call that would begin an hour later. When the analysts dialed in, they heard Henry Meyer III, the company's brand-new nonexecutive board chairman, announce Smisek's immediate resignation. His replacement, Munoz, was a board member at United and, before that, Continental, but was otherwise an outsider to the airline industry. He came from CSX, where he was the chief operating officer and president. He'd been seen as a likely pick to run the rail giant—early in his career he'd worked both sides of the cola wars, first at PepsiCo and then at Coca-Cola. When an analyst on the call asked Munoz whether, in light of the sudden change at the top of United, any major decisions would be pushed into the future, he said that putting things off "is not entirely in my vocabulary, certainly." When another asked when the company would choose a new chief financial officer (a post that remains unfilled), Munoz replied, "It's my first half-hour."

Late 2014
Baggage Lag
Passengers on United Express flights into Denver over the 2014 holiday season complain that the baggage handling system has all but come to a halt, with bags routinely going missing and the wait at carousels often exceeding two hours.

Munoz threw himself into the task of reintroducing the airline to its customers. He called Gordon Bethune, the beloved Continental CEO who had turned the airline around in the 1990s, and invited him to Chicago, where the two talked about how to repair the airline's dismal reputation. United took out ads in newspapers across the country admitting that "we haven't lived up to your expectations or to the promise and potential" of the 2010 merger. Munoz wrote an open letter to employees promising to "give you the right tools to deliver the service and reliability I know we are capable of." He described a conversation with a longtime United flight attendant "near tears" who told him, "I'm just so tired of having to tell people I'm sorry." During the hectic days before Thanksgiving and Christmas, United managers handed out free bottles of water to customers at the airline's hubs—an updated version of a Bethune tactic.

Munoz talked to employees wherever he flew, often surprising them in their breakrooms. "He listens exceptionally well," Bethune says, "and he understands the value of an engaged workforce." On his second day on the job, Munoz walked the floor of the airline's network operations center in Willis Tower, something people there recalled seeing Smisek do only a handful of times (usually with a camera crew in tow). In a story that quickly made the rounds, Munoz crashed an after-work employee party at a downtown Chicago bar. The approach seemed to be working. "I think the way to talk about it," says Sara Nelson, a United flight attendant and the international president of the Association of Flight Attendants-CWA, "is the airline was just incredibly sick and Oscar Munoz is like a shot of penicillin. It's going to get better, but it has to have some time to actually settle in and work."

In late September, Mendonca, the former McKinsey partner, posted an open letter on the website Medium detailing his frustration with United. Munoz e-mailed him, and the two set up a time to talk on Oct. 15. That day, Mendonca got an e-mail from Munoz's assistant saying the CEO wasn't feeling well. As United confirmed the next day, Munoz had been hospitalized with a heart attack. The following Monday, the company announced Hart was the interim CEO.

Soft-spoken and courteously circumspect, Hart sat for an interview just before Thanksgiving in his Willis Tower office, down the hall from the one kept vacant for Munoz. Asked what it was like to be the interim head of a massive company, he smiled: "There's no real book on it. I looked around." But, he added, "Oscar was with us long enough for us to have a very good understanding of how he wanted us to think about executing the plan and the various factors that we should take into consideration: how something is going to impact the overall customer experience, how it's going to impact our employees' ability to provide great customer service, whether it's innovative."

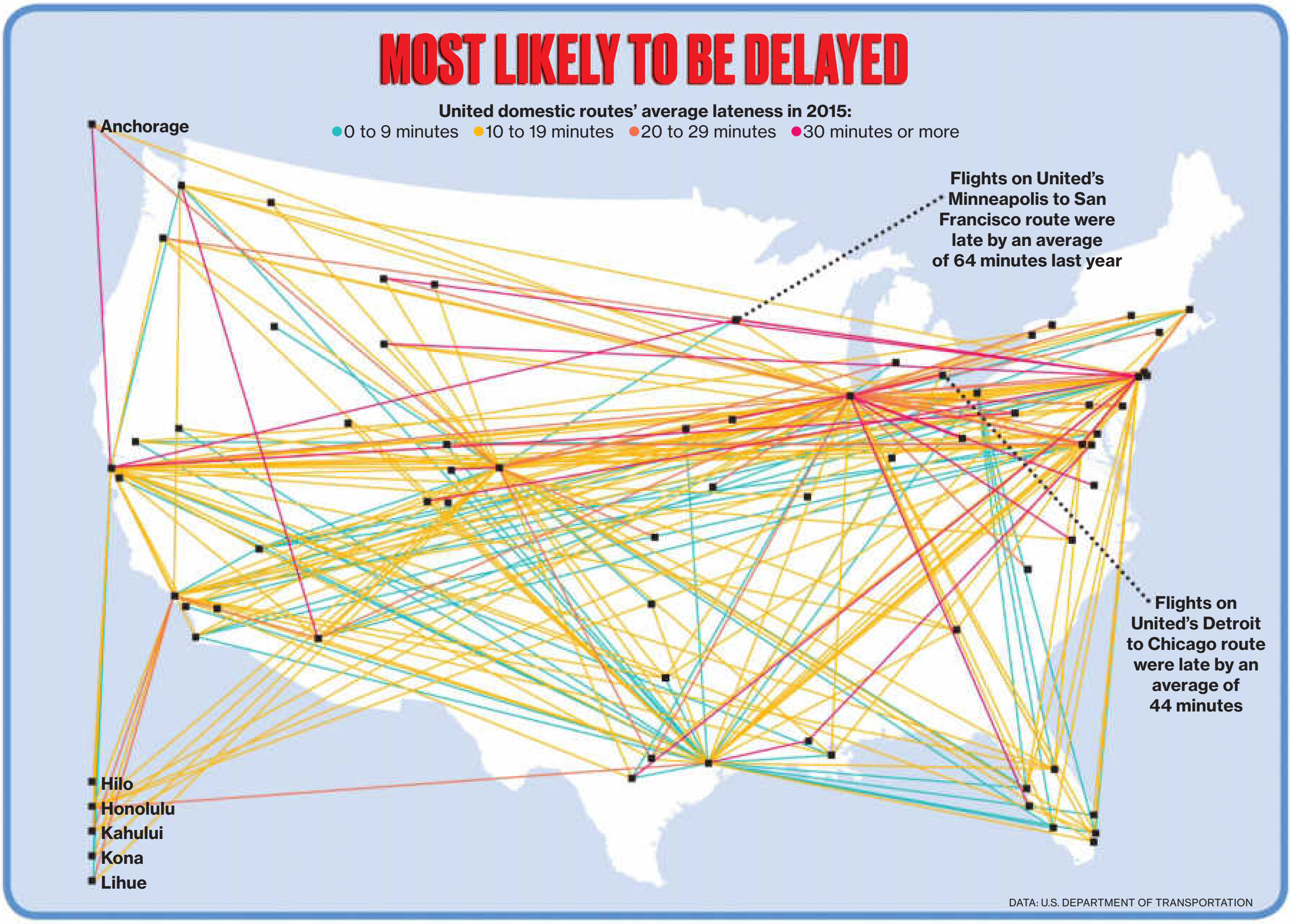
Under Hart, the airline has kept up a steady stream of changes, some big, many small. On Oct. 23 it announced an agreement with the leadership of its mechanics union, then a month later a contract extension with its pilots. Both are contingent on votes by the unions' members. The company declared a moratorium on outsourcing airport customer service and ramp jobs until 2017. Representatives from the company's uniform vendors were brought in to hear employees' complaints. Perhaps more significantly, the carrier brought back free snacks in economy class.

Then there was the coffee, an issue that, while hardly central to its business, symbolized United's inability to get things right. On Nov. 19 the airline announced it was changing the coffee it serves on its planes and in its lounges from a brand called Fresh Brew to the Italian premium roaster Illy. It was welcome news to customers and to the flight crews used to fielding complaints. It was also a tacit admission that the choice of coffee after the merger, a decision that consumed thousands of man-hours, took nearly a year, and involved everyone from Smisek to the airline's head chef to the flight attendants, hadn't worked out.

More fundamentally, United is reexamining the way it boards planes. "There's a lot of anxiety around the boarding process," says Mandeep Grewal, the managing director who led last summer's customer-satisfaction task force. "You repeatedly see lower satisfaction scores." United's boarding process—five cordoned-off lines corresponding to their own boarding groups—was instituted in 2013 to bring organization to the expectant throng at the gate. But what Grewal's team found was that the lines were self-perpetuating. As soon as someone got in the queue, others felt compelled to do the same. Well before boarding time, the lines would trail out across the concourse. Regardless of how long the process took, it felt longer to those going through it.

Oct. 20, 2015
Little Help?
D'Arcee Neal, who has cerebral palsy, crawls off his plane when, after waiting for 30 minutes, there's still no wheelchair there to carry him to the jetway. A flight attendant reports the incident, and the airline calls him to apologize the next day.

Working with planners in United's airport operations department, Grewal ran experiments with flights out of Phoenix and Newark and came up with a system with only two main lanes: one for the group currently boarding and one for the group that was next. To preserve the prerogative of late-arriving priority passengers, a "bypass" lane was added. In late October the boarding process working group took over a gate at Chicago's O'Hare International Airport for four weeks. They boarded single-aisle and twin-aisle planes, flights full of business travelers, and flights to leisure destinations such as Hawaii. According to Michelle Brown, Grewal's counterpart at airport operations, "We're clearing the gate area faster now and getting a better flow." United is refining its boarding algorithm and plans to roll it out later this year.



The routes planes fly are also evolving. Previously, the airline relied heavily on what's known as linear routing: a plane starting in New York would land, say, in Chicago, then travel to Denver and San Francisco and end its day in Seattle. The method maximizes the hours each aircraft is in the air full of revenue-generating customers, but bad weather at one airport can cause delays and cancellations along numerous routes. In November, United started increasing its use of "out-and-back" routing. It also increased the amount of time budgeted for turning planes around, something it hadn't done even though, with newer, thinner seats, its planes were carrying more passengers.

"We're trying to find more of a balance between scheduling an airline for maximum efficiency from an asset perspective as opposed to operations," says Andy Buchanan, managing director of international network planning. "We're finding, I think, a better middle ground."

Recent months have seen marked improvements in United's performance. Its on-time and missed-connections metrics have been the best since the merger. Its rates for mishandled baggage are also sharply down, according to the latest Department of Transportation statistics. While the airline hasn't closed the gap with industry leader Delta on those measurements, it's at least pulled itself solidly into the middle of the pack. New planes have steadily been replacing older ones. And fliers are happier: Internal customer satisfaction scores were better in 2015 than in 2014, better in the fourth quarter of 2015 than in the third, and in December were the highest in two years.

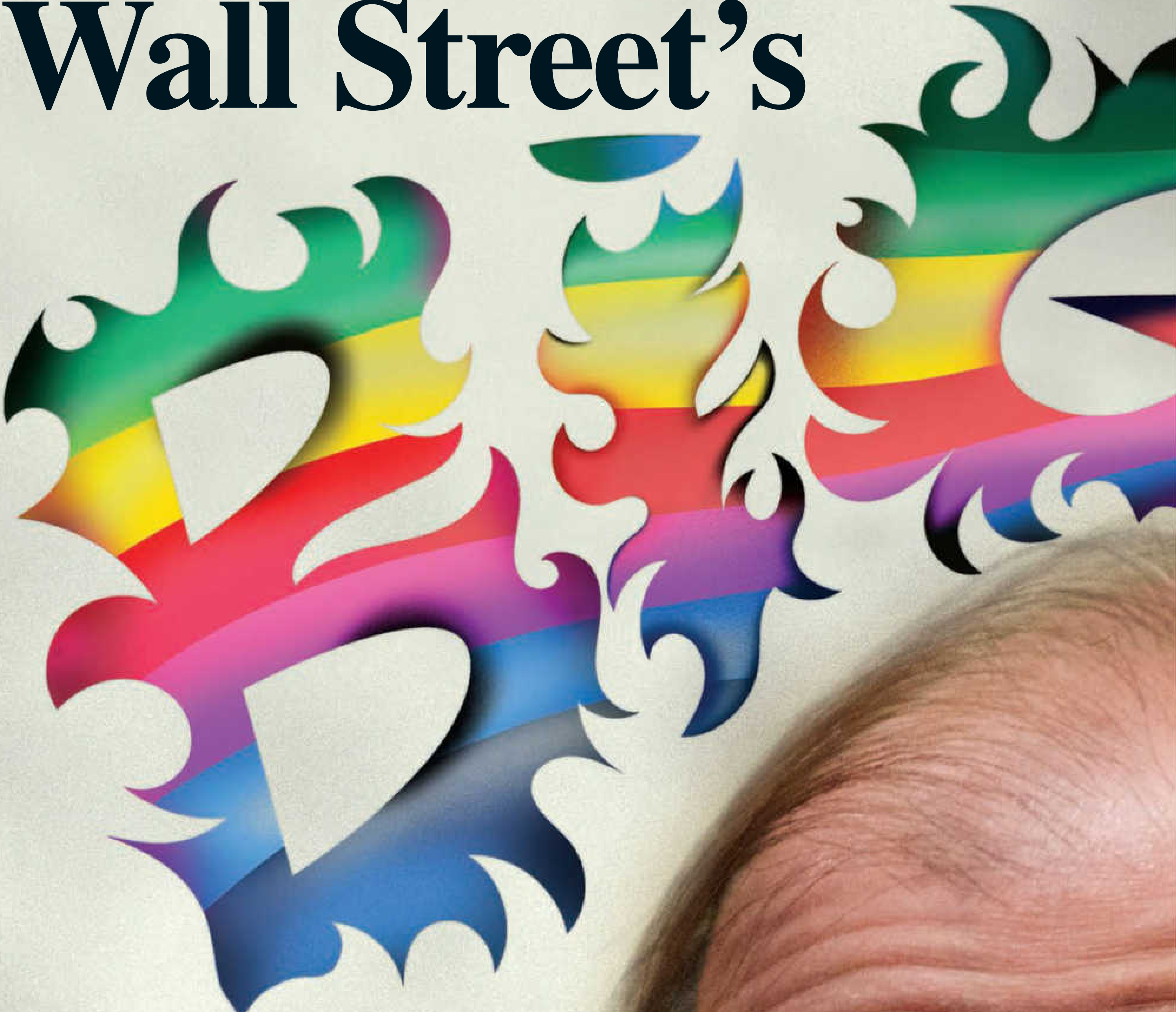
On Jan. 7, United released an upbeat announcement, quoting the chief of cardiac surgery at Munoz's hospital. "Given Mr. Munoz's excellent physical condition and the rapid pace of his recovery prior to the transplant, we expect a quick recovery and a return to his duties as CEO," he said. If Munoz has no complications from his heart transplant, he should be in the hospital for 10 days. He'll be able to drive a car in six weeks. A full recovery can take six months or more, but patients can return to work in two or three months if all goes well. Of course, as recent years should have taught everyone at United Airlines, it's best to plan for complications. Whether the company's board has done so remains to be seen; it has not publicly addressed the delicate but potentially necessary issue of a successor.

The airline's recent progress has occurred at a time of exceedingly friendly market conditions. Passengers have proved willing for the past few years to pay higher fares, and to submit, if grudgingly, to paying on top of that for checked bags, legroom, and food. Most of United's profit of late is due to historically cheap fuel–a huge cost for airlines–an advantage that may not last. After five cost-conscious years, it will be hard for United to find any more savings to squeeze out. And its rivals continue to make gains. Delta recently passed United to become the second-largest U.S. airline by traffic. United's competitor American, now the world's largest airline, has brought in record profits as it works through the challenges of its own 2013 merger with US Airways.

The true test will be finding a way to grow in less forgiving times. On Jan. 11, United reported that passenger revenue has declined more than expected, partly due to the Paris terrorist attacks. "Look, this is the airline industry. We are accustomed to windows opening and closing and opening again," says Hart. "So we are not hitting the pause button in any respect." B

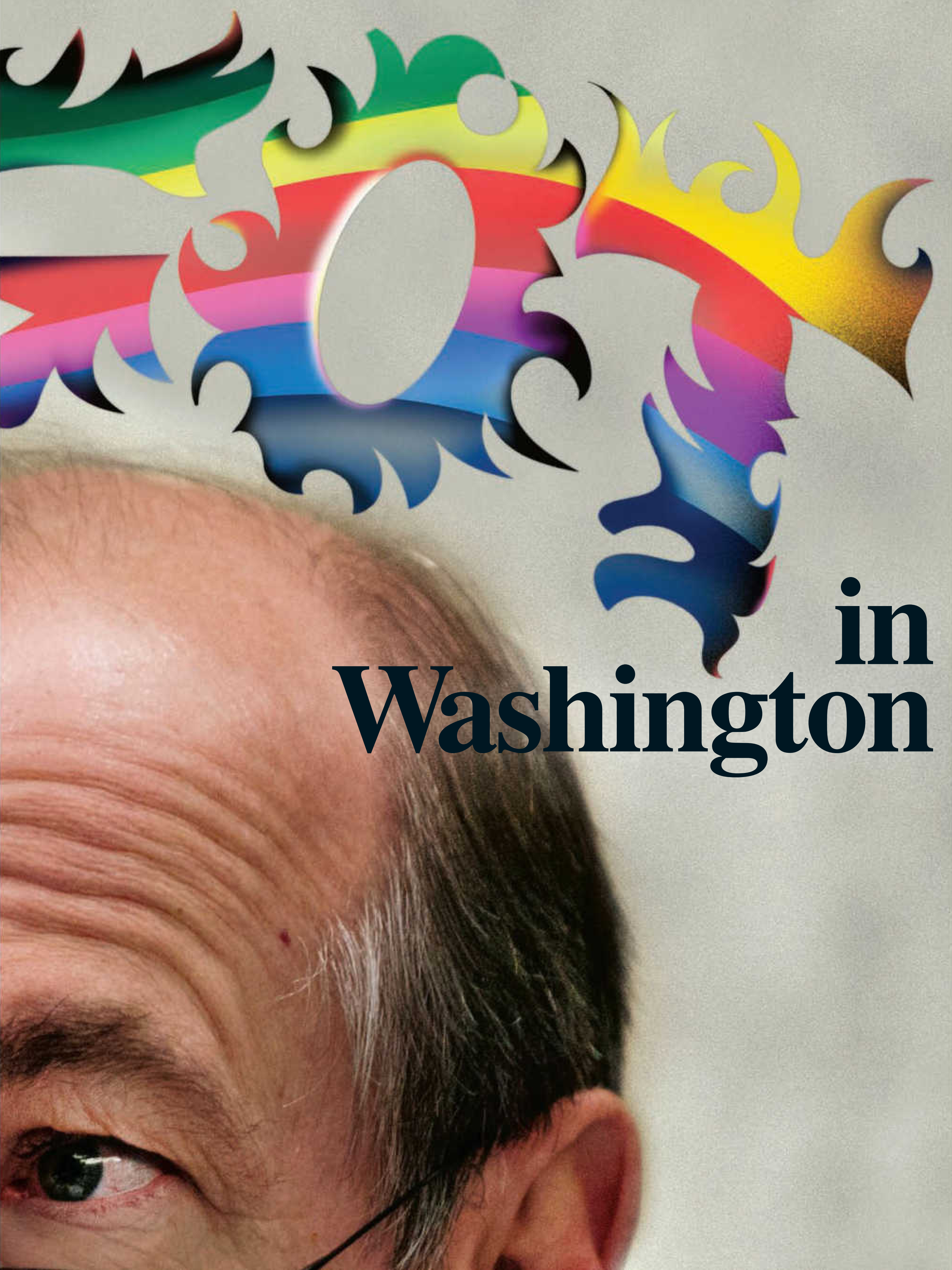
—With reporting by Julie Johnsson and David Kocieniewski

Wall Street's



Representative Scott Garrett's antigay views are making Wall Street reconsider how it does business

By Joshua Green



in Washington

On Oct. 15 the leading lights of the House Financial Services Committee, Republican and Democrat, arrived in Bern, Switzerland, for a gathering hosted by the U.S. Ambassador to Switzerland and Liechtenstein, Suzi LeVine. It was the final leg of a three-country congressional delegation, or Codel, led by the committee's Republican chairman, Jeb Hensarling of Texas, that had already traveled through Germany and England. Officially, the trip was a "fact-finding mission" to study global banking networks and bilateral trade. In reality, it was a luxury European vacation.

Codels are a cherished perk, one of the few still available to members of Congress. Lawmakers bring their spouses. Staffers jockey to be included. The plush hotels, foreign-dignitary treatment, and bipartisan bonhomie are a welcome relief from Washington's normal travails. Hensarling had magnanimously invited the top-ranking Democrats along with his Republican subcommittee chairs, so the mood in Bern was highly convivial.

At one point, LeVine gathered everyone for a photo. Then the politicians mingled. A little while later, though, a nervous ripple spread among some in the crowd. LeVine had tweeted the photo from her official account, @AmbSuzi. In doing so, she unwittingly provided photographic evidence of an awkward drama preoccupying members of the traveling party: the noteworthy absence of Republican Representative Scott Garrett of New Jersey, chairman of the powerful Subcommittee on Capital Markets and Government Sponsored Enterprises.

Garrett's committee is vital to Wall Street. "The rules of the road for handling money and anything with the SEC go through this committee," says Marcus Stanley, policy director of the nonprofit Americans for Financial Reform. "There's a ton of money at stake." In Washington, the committee is known as the ATM, because banks and hedge funds shower the chairman with contributions. After the Dodd-Frank financial law forced hedge funds to register with the Securities and Exchange Commission, Garrett, already the recipient of more Wall Street money than almost any other member of the House, got millions more. The banks pay to have a voice, ensure they're at the table when new rules are discussed, and insinuate themselves into the chairman's good graces.

Much of the money Garrett collects from Wall Street is supposed to be passed along in the form of party dues to the GOP's campaign arm, where it's used to help other candidates get elected. So the committee is also important to Republicans because it binds the party with the business community in a mutually profitable arrangement. But back in July, Garrett threw a wrench into this smoothly humming machine.

At a private caucus meeting, he got into a heated dispute with his colleagues by declaring that he'd withhold hundreds of thousands of dollars in National Republican Congressional Committee dues to protest the party's support for gay candidates. His outburst immediately caused a rift in the caucus. "I was shocked," says Richard Tisei, a Massachusetts businessman who was one of the candidates Garrett objected to. "The first time I ran, I was nervous my sexuality would be a problem. But everyone was just great. John Boehner, Paul Ryan—they went out of their way to let me know it wasn't. Eric Cantor pulled me aside and said, 'You know, I'm the only Jew in the caucus, so I understand better than anyone how important it is to have you down here to broaden and diversify our ranks.' "

Garrett did have his defenders in the party's most conservative redoubts. "Scott is a very devout Christian, and he had some very strong feelings about it that he discussed at that meeting," says Representative Mick Mulvaney of South Carolina, who was present when Garrett made the remarks. "It was very respectful. I think the end result of the meeting was that Scott had mentioned he'd come to some agreement that he'd still support the party but in a way that didn't cause a conflict with his morals."

Some of Garrett's colleagues were simply upset that he was stiffing the NRCC. But others understood that he was jeopardizing the party's electoral and financial fortunes: As the GOP struggles to widen its appeal, Garrett's comments, which quickly became public, reaffirmed the impression of Republicans as stridently intolerant.

Although both men are deeply conservative, staffers say Garrett and Hensarling fell out over the issue—and that Garrett's absence in Bern was no accident. Members of the delegation had jokingly taken to calling their group the "Leadership-minus-Garrett Codel," since he was the only chairman who hadn't come along. Now Ambassador LeVine's tweet had advertised this to the world.

The political fallout from Garrett's remarks pales compared with the anguish it's created in some corners of Wall Street. The financial industry ranks among the biggest donors to the Republican Party. But it has also been a pioneer in advancing gay rights. Garrett's reelection race presents banks and investors with a fascinating—and excruciating—moral dilemma: Do they follow their financial interests and continue supporting a chairman whose antiregulatory views largely jibe with their own? Or do they honor their professed commitment to LGBT equality by cutting off that support and potentially angering a powerful industry overseer?

For all the criticism heaped on Wall Street, the Human Rights Campaign's "Corporate Equality Index" ranks banking and financial services firms behind only law firms as the industry most committed to providing LGBT-friendly workplaces. Prominent figures such as Goldman Sachs Chief Executive Officer Lloyd Blankfein have made a point of publicly championing this ideal. And support has been bipartisan, encompassing major Republican donors, such as hedge fund magnates Daniel Loeb of Third Point and Paul Singer of Elliott Management. "Wall Street understands this isn't just a civil rights issue—it's about being able to attract and retain the best talent," says Todd Sears, a former investment banker who started Out on the Street, a group promoting LGBT awareness at financial firms around the world.

As *Bloomberg Businessweek* reported in April 2015, Singer and Loeb are founding members of a new pro-equality group that uses business leaders as emissaries to the mostly Republican legislatures in states that lack nondiscrimination laws. "I bring it up in almost every conversation we have with Republicans," Loeb told me in April. "This will be good for the country and good for the Republican Party."

Garrett's close ties to the Wall Street lobbyists and

executives who attend his hearings and fundraisers led many of them to take his outburst personally. One gay banking lobbyist told me he got the news while driving to work and was so upset he had to pull over. While Garrett's social conservatism was no secret in Washington, antigay sentiment is rarely stated so bluntly. "Garrett, unlike some of the other Republicans, has embarrassed them by being so explicitly bigoted," says Barney Frank, the former Democratic chairman of the Financial Services Committee, who worked with Garrett for years.

But banks and investors inclined to drop Garrett over his antigay views would be taking a risk: They rely on him to fight their battles and could open themselves up to retaliation. Garrett, for example, has led the effort to block the Treasury Department from designating nonbank institutions as "systemically important financial institutions" and imposing an added regulatory burden. He's pushed to privatize mortgage markets and abolish Fannie Mae and Freddie Mac. And his jaundiced view of activist investors has led him to explore measures that would make it easier for companies to fend off unwanted attacks.

These bankers also recognize that the issue could cause them problems internally. Most large financial firms have active (and powerful) LGBT groups. They also have political action committees that donate to politicians. Employees generally pay little heed to how this money is spent–unless they're given reason to. "When I was at Credit Suisse," says Sears, "we had serious issues around [supporting] the Boy Scouts, given their prohibition of gays."

Another effect of Garrett's rebellion is that it's dragged into the spotlight the uncomfortable question of what accommodations banks were willing to make for politicians before gay equality became a priority–and what accommodations they're willing to make now. Goldman Sachs, JPMorgan Chase, UBS, Citigroup, and Brown Brothers Harriman were all among Garrett's top donors in the last election. "I argue this with Blankfein all the time," Frank says. "Their own economic self-interest has gotten them to support people who have very extreme views contrary to what they profess to believe. Blankfein told me, 'Well, I shouldn't have to make a choice.' I said, 'Well, that's life. You make choices.' "

Nothing illustrates this tension better than the man regarded as the most prominent Republican champion of gay rights on Wall Street.

Garrett adds his assessment to a Dodd-Frank "report card" in 2011

According to data from the Center for Responsive Politics, Paul Singer and the employees of Elliott Management have been Garrett's biggest donors by a huge margin during his 13 years in Congress. It's no surprise that an activist investor like Singer, with $27 billion under management at Elliott, would prefer Garrett to think of him as an ally.

With Garrett's reelection campaign gearing up for November, all of these interests are going to have to choose a side. As one political strategist who deals with several of the interested parties puts it: "It's the biggest scandal nobody in Washington or Wall Street wants to talk about." Sure enough, Hensarling, Singer, Loeb, and Blankfein all declined interview requests; Garrett's office ignored multiple interview requests.

Garrett's timing couldn't be worse. Democrats have already recruited a strong challenger for his congressional district in what is one of the most expensive media markets in the country (a factor that until now worked in the chairman's favor). "Garrett's biggest political asset has long been the financial windfall he received primarily due to his perch on the Financial Services Committee," says David Wasserman, the House editor for the nonpartisan *Cook Political Report*. "If that goes away, it could be a whole new ballgame."

Politically speaking, Garrett is a fascinating anomaly–a bit like encountering a penguin in the desert. His views are those of a rural Alabama conservative, yet he represents a prosperous New Jersey district just over the George Washington Bridge from Manhattan that's home to many bankers, brokers, and financial analysts. New Jersey's 5th District resembles a chevron: it stretches up the Hudson River, runs northwest along the New York state line and then bends to the southwest along the border with Pennsylvania. For two decades it was represented by Marge Roukema, a moderate, pro-choice Republican.

Garrett, on the other hand, is a founding member of the ultraconservative House Freedom Caucus. He's staunchly pro-life, has voiced doubts about Obama's citizenship, and voted to oust his own party's former speaker, John Boehner. When I visited his Democratic challenger, Josh Gottheimer, in late November, the young Microsoft executive and veteran of Bill Clinton's White House said the best way to understand Garrett's hold on the district was to drive through it. Our trip began in

"Wall Street understands this isn't just a civil rights issue—it's about being able to attract and retain the best talent"

PREVIOUS SPREAD: PHOTOGRAPH BY LEXEY SWALL FOR BLOOMBERG BUSINESSWEEK; THIS PAGE: CHIP SOMODEVILLA/GETTY IMAGES

the heavily populated eastern end. Gottheimer and his consultant, Adam Silverstein, picked me up in Ridgewood, and we soon hit heavy traffic in Paramus, even though it was lunchtime on a Thursday. "As you can see, most of the population is centered around here, in Bergen County," Gottheimer said. Paramus, he noted, generates more retail sales than any ZIP code in the country. Bergen County, which makes up 72 percent of the district, is the last true swing district in the state, he said. Obama won it by 40,000 votes in 2012; Governor Chris Christie, by 50,000 votes a year later. But it's inching Democratic. The latest redistricting added the blue urban centers of Hackensack and Teaneck.

We got onto Route 17 and drove north to Upper Saddle River. "This is the wealthiest town in New Jersey," Silverstein said, waving a hand as we drove past multimillion-dollar estates. "Bergen County Republicans tend to have high incomes and vote with their pocketbooks. But they're generally socially moderate or even liberal." Roukema was the classic Bergen County Republican.

Next we headed southwest along Interstate 287. After 30 miles or so, the terrain grew hilly and the towns farther apart. We crossed into Sussex County, Garrett's home, and stopped for gas. It was clear from looking around that horses and cows outnumbered Wall Street workers. Residents of Sussex County and neighboring Warren County are less wealthy and more socially conservative than their counterparts to the east. And there are enough of them to shade the district red.

Garrett got his start—and his politics—here, winning an Assembly seat in 1990. He gained a reputation as a staunch right-winger, "part of a unique cadre of legislators who took a deep pride in pushing a radical-right agenda and were known informally as the Mountain Men," says former Democratic Governor Jim McGreevey, whom Garrett tried to force from office after McGreevey confessed to having a gay affair. "The leadership in both parties worked to sideline them, since many of us, Republicans included, considered their views ossified. What happened in that caucus meeting was not a surprise." The term Mountain Men, McGreevey adds, refers to the terrain in the western region from which they hailed—not to the movie *Brokeback Mountain*.

In 1998 and 2000, Garrett challenged Roukema in the Republican primary and lost. But in 2002, when she retired, a pair of Bergen County Republicans split the moderate vote and Garrett won the primary and the seat. Early in his first term, he committed the lone apostasy that blemishes his conservative record, bowing to pressure from President George W. Bush to vote for a Medicare drug benefit he opposed. According to a former Garrett staffer, an irate constituent—possibly a chiropractor—sent him a life-size model of a human spine and pelvis, with a note suggesting Garrett lacked one of his own. The spine had its intended effect. Garrett kept it in his office and hasn't wavered from his principles.

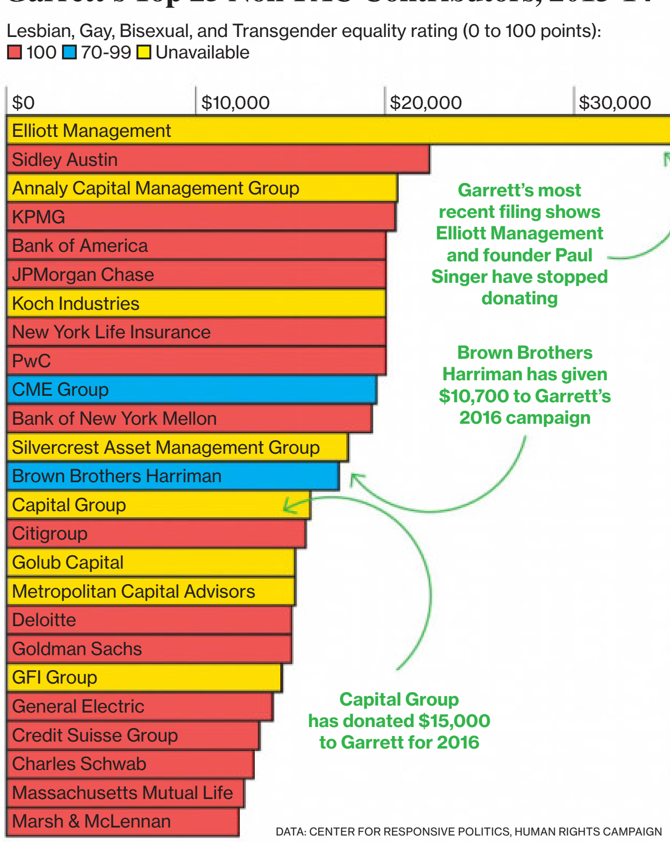
Democrats have argued for years that Garrett is out of step with his district but have never managed to unseat him. The New York media market is prohibitively expensive, so opponents can't define him through TV ads. Before now, Garrett kept a low profile, seldom flaunting his social conservatism. "He's very good at hiding," says Steve Elmendorf, a financial services lobbyist in Washington and former Democratic House staff member. Anchored by his strong support in the deep-red part of the district, Garrett has had little trouble getting reelected. Most handicappers, including the *Cook Report*'s Wasserman, still consider him a narrow favorite to win in November.

But his attack on gay candidates appears to be altering that equation. "He's an ideologue who doesn't represent the values of our community nor my outlook as a businessman," says Peter von Halle, a Republican who owns a brokerage firm in Ridgewood and is supporting Gottheimer. "Most people wouldn't believe that one of the most radical representatives in the country is sitting right here in the middle of northern New Jersey." Von Halle says the issue is especially sensitive because Tyler Clementi, a gay Rutgers freshman who was bullied and killed himself by jumping off the George Washington Bridge in 2010, was from Ridgewood. "We are a very tolerant, diverse, and accepting community who wouldn't want someone bullied over their sexual orientation," Von Halle says.

If Garrett is subjected to more scrutiny in the upcoming campaign, this issue could pose a serious liability because his objection to gay people isn't limited to political candidates. Examining his public-disclosure filings, I noticed that he's a co-founder and former trustee of a private high school, Veritas Christian Academy, in Sussex County, which explicitly forbids "homosexual activity." The "Code of Conduct" on the Veritas website warns students that any violation will draw an automatic suspension and possible expulsion.

It's imperative for Garrett to be seen as firmly in command of the capital markets subcommittee, because that's the basis of his Wall Street donations. A weak chairman ostracized by his

Garrett's Top 25 Non-PAC Contributors, 2013-14



DATA: CENTER FOR RESPONSIVE POLITICS, HUMAN RIGHTS CAMPAIGN

“Most people wouldn’t believe that one of the most radical representatives in the country is sitting right here in the middle of northern New Jersey”

colleagues won’t move many bills or sway the full committee; the invisible transaction of Washington influence will stop working for him. Bank lobbyists who write checks to remain in his favor and get their CEOs invited to his hearings to offer their “perspective” will be less receptive to fundraising entreaties.

Yet Paul Ryan, the new House speaker, won’t dare remove Garrett, because punishing recalcitrant members of the Freedom Caucus is what cost his predecessor, John Boehner, his job. Garrett’s biggest threat is the possibility that his financial supporters will abandon him—something that’s already begun happening in the wake of this summer’s controversy. Banks and hedge funds are loath to address Garrett’s remarks, but his most recent disclosure filing shows that several major donors stopped giving to him, including Goldman, JPMorgan, and his biggest donors, Singer and Elliott Management. Loeb and his wife have gone a step further, personally contributing to Gottheimer.

Still, many companies, including U.S. Bancorp, UBS, Nomura Holdings, Capital One, and the mutual fund firm Capital Group, continued giving money even after his outburst came to light. New Jersey’s Democratic Senate majority leader, Loretta Weinberg, sent a letter pressuring these banks and others to “take a stand against hate” and stop giving to Garrett; at least one bank, Banco Bilbao Vizcaya Argentaria, said it will comply. But other banks held firm. In a reply to Weinberg, Capital One initially defended its actions: “We believe that maintaining a PAC focused exclusively on issues that are core to the banking industry is the most effective way for us to evaluate candidates.” Then, just before Christmas, Capital One reversed itself and announced it would cease donating to Garrett, after student protesters from the University of Pennsylvania demanded the bank stop.

When contacted by *Bloomberg Businessweek* to ask about their rationale for sticking with Garrett, U.S. Bancorp and Nomura both said they would cease donations. “We are a company that is committed to diversity and equality in the workplace,” said Nomura spokeswoman Jennifer Will. UBS and Capital Group wouldn’t comment. Meanwhile, Gottheimer raised more money than Garrett did in the third quarter of 2015, bringing in $400,232 to the incumbent’s $175,000. (Garrett still has $2.3 million on hand from happier days, compared with his opponent’s $934,000.)

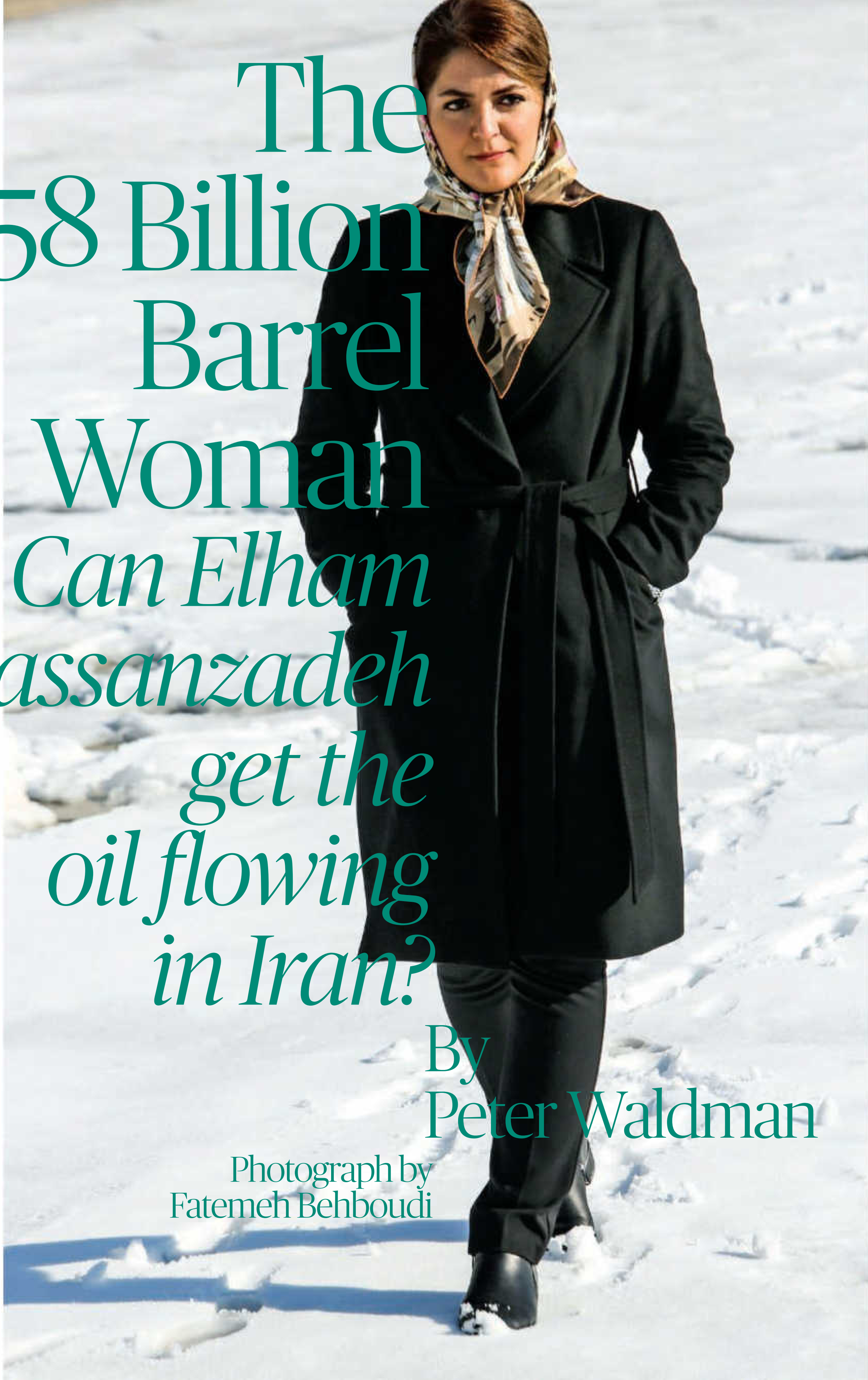
“My takeaway from talking to people in the financial community,” Gottheimer says, “is that they don’t think that someone who’s a social extremist can also be a problem solver who can sit at a table and do business with them.” That concern extends beyond Garrett’s district. Last cycle, the Chamber of Commerce, fed up with Tea Party-driven shutdowns and default scares, took the unorthodox step of endorsing six Democrats; five of them won. Gottheimer could be next. “We’re looking for good, probusiness candidates who can win in the fall and focus on governing,” says Scott Reed, the Chamber’s senior political strategist.

Garrett’s fundraising won’t get any easier, because he hasn’t backed away from his comments. *Politico* reported over the summer that he’s worked out an accommodation whereby his dues will be paid into the NRCC’s building fund and thus won’t be used to support gay candidates. It’s a position that ensures he won’t get another human spine in the mail. But it doesn’t fix his problem with Wall Street Republicans offended by his antipathy to gays and lesbians. “When I take [Gottheimer] around to raise money, including to activist hedge funds, it won’t be because they’re activists or from hedge funds,” said a conservative New York hedge fund manager backing Jeb Bush for president. “It will be because they’re supportive of gay rights.”

Such cross-party support could end up being decisive. “Gottheimer has a golden opportunity to drive a wedge between Scott Garrett and moderate Republicans on social issues,” Wasserman says. That could potentially give Gottheimer the 10 to 15 percent of Republican voters he’ll need to win the district.

Sears, of Out on the Street, says the situation banks face with antigay Republicans is similar to one they face abroad. “Places like Uganda and Singapore are massively antigay, yet banks still have to do business there,” he says. “The key is leveraging the soft power business leaders have in these countries.” The same strategy could apply with Garrett. “Capital One is supporting him this time,” Sears said, a few weeks before the bank’s reversal, “but they might not the next time.” He added that Capital One had just joined Out on the Street’s board.

Banks are leery of criticizing Garrett because the committee chairman could well be reelected. But that straddle may not be viable for much longer. Wall Street’s near-universal acclaim for the Supreme Court’s decision legalizing same-sex marriage was a clear sign of which way the wind is blowing. “Corporate America views LGBT issues as a basic civil-rights issue,” lobbyist Elmendorf says. “If an elected official said something racist about Hispanics or African Americans, it would be very hard for a corporation to support that official.” Garrett’s continuing favor on Wall Street shows that some firms don’t yet accept this parallel. It will take more controversies for that to change. “The thing the LGBT community needs to do,” Elmendorf says, “is put a bigger spotlight on the people and the firms who help lawmakers like Garrett, and let them know, if you want to be known as pro-LGBT, you can’t support someone like this.” —*With Robert Schmidt and Silla Brush*



The 158 Billion Barrel Woman

Can Elham Hassanzadeh get the oil flowing in Iran?

By Peter Waldman

Photograph by Fatemeh Behboudi

At Monsoon, a bistro in Tehran that serves sushi, Szechwan beef, and Gouda and calamari on whole wheat toast, the fusion cuisine is an act of defiance. So are the women's fashions—tight robes, exposed calves, headscarves that barely conceal blond and henna-colored hairstyles. The restaurant, with its rough concrete walls, red countertops, and statues of Hindu and Buddhist goddesses, looks more Manhattan than Islamic Republic. Seated at a corner table is Elham Hassanzadeh, almost 6 feet tall, with dark eyes, thick eyebrows, and lush brown hair that overflows her hijab. Her dining companions are the middle-aged bosses of two large Iranian engineering and construction companies.

Raised in a pistachio-farming family in tradition-minded southern Iran, Hassanzadeh, 31, earned her law degree and Ph.D. in the U.K. on scholarships. She literally wrote the book on Iran's natural gas industry since the 1979 Islamic revolution—it was published last year by Oxford University Press. She has returned to Iran to head a consulting firm, Energy Pioneers, based in Tehran and London, that's at the vanguard of Iran's all-out push to lure back foreign investors after the expected lifting of sanctions in coming months. Iran is counting on Western technology and hoping to raise $100 billion in overseas financing to double its oil and gas production in the next five years. Hassanzadeh is building a business by parlaying a deep knowledge of Iran's energy resources, close ties to government technocrats and industry leaders in Tehran, and high-level contacts at major oil companies, law firms, and investment houses in the West.

Her clients are impatient. "Foreign companies should open offices in Tehran immediately and buy shares in local companies who can be their agents and help with management," says one of Hassanzadeh's dinner companions, B.M. Hazrati. He's the managing director of Arsa International Construction and head of a contractors' trade group. "Unfortunately, they're still looking at us like it's 15 years ago."

"The world has moved on," Hassanzadeh says, dismissing the idea that Western investors, in a market glutted with oil, are ready to rush back to Tehran without examining the fine print. Lately she's been commuting between Iran and Europe to speak at trade conferences and in meetings with Western oil executives, fund managers, bankers, and lawyers about her country's reemergence.

Despite her age, she cultivated a wide network of industry players in Europe during her years at the Oxford Institute for Energy Studies. Some of these contacts may have skirted U.S. law by merely discussing business with an Iranian, so Hassanzadeh names no names as she shares what she's learned: Significant Western involvement in Iran's oil sector is at least 18 to 24 months away, maybe much more. Prospective partners don't trust the information they're getting out of Tehran, she says, and the big banks and investment funds "still need a clear green light" from the U.S. Department of the Treasury before committing money to Iran. "For them, Iranian stability is still questioned," she says. "What happens in two years if [reformist President Hassan] Rouhani isn't reelected?"

The dour assessment rankles Hassanzadeh's other guest, Mehrdad Motarjemi, managing director of Gamma, a Tehran company that recently completed Iran's biggest natural gas production complex in the Persian Gulf, called South Pars Phase 12. "You can always make a long list of what-ifs," says the silver-haired executive, 60, whose smile and soft voice belie a snappy disposition. "What if Donald Trump becomes the next U.S. president?"

The conversation shifts to another debate raging inside Iran's oil industry—between those who argue that Phase 12 and other achievements during the four years of global sanctions prove Iran doesn't need foreign help, and executives such as Motarjemi who say international technology and management expertise are indispensable. Phase 12, while hailed in Iran as a triumph of self-sufficiency, cost twice as much as it should have because of sanctions, according to Motarjemi. "You can't imagine how difficult it was," he says. Banks in Dubai and Asia charged usurious rates to move Iranian money. Western suppliers labeled random components such as piping and valves "dual use"—that is, applicable in military or nuclear technology—and wouldn't sell them to Iran. Spare parts never arrived for some critical components such as pumps; a massive compressor is still on a dock in Dubai, mired in sanctions red tape.

"I've seen how management functions much better when there's a European company working beside us," Motarjemi says over a dessert of fried mango spring rolls with coconut ice cream. "We want to forget the past hatred, whatever it was, and start all over again."

Undeterred by this month's flareup with sectarian rival Saudi Arabia across the Persian Gulf, Iran is ready to rebuild its energy industry. The West has been salivating since the July 2015 breakthrough on lifting the sanctions. At a conference in Tehran in late November, Oil Minister Bijan Namdar Zanganeh tantalized more than 300 foreign energy executives with 70 exploration and development projects up for bid, targeting $30 billion in new investments. Ministry officials are promising better terms for foreign producers than found in Iran's previous oil contracts, which allotted companies a fixed fee regardless of how much oil they produced and paid nothing to companies that spent more than was budgeted to develop a field. The new contracts will be valid for as long as 25 years, compared with seven before. Iran, which says it will disclose more details in February, wants to sign its first deal as soon as this spring.

"How often in one's lifetime does a hydrocarbon superpower reopen for business?" says Ganesh Betanabhatla, a Houston-based private equity investor in oil and gas deals. As an American, he's on a lonely quest to invest in exploration and production opportunities in Iran after sanctions are fully lifted, via plays by some of the midsize American oil producers he's backed in the past. But he was only willing to talk about Iran if his firm's name didn't appear in this article. And as a big supporter of Jeb Bush and as national vice chairman of Maverick PAC, a fundraising group of wealthy Republicans younger than 40, Betanabhatla, 30, has endured taunts from GOP friends about his Iran pursuit. (That attitude isn't changing, especially after Iran briefly held U.S. sailors who had strayed into its waters on Jan. 12.) "This is a worthy cause," he says, "but to me it comes at a cost."

Betanabhatla's bigger problem, he says, is that information on Iran's vast hydrocarbon deposits is sketchy and scarce: "No one in the independent exploration and production world has set foot there in 36 years." Hassanzadeh has helped Betanabhatla with research, and her network has arranged meetings for him with Iranian officials in New York and Europe. Her circle of sources includes a pair of thirtysomething white-shoe lawyers—among them Amir Ghavi at Willkie Farr & Gallagher in

New York—as well as the CEO of a giant commodities trader in Switzerland and the head of development for one of Europe's biggest oil producers.

Hassanzadeh became fascinated with energy while earning her bachelor's degree in law at Islamic Azad University in Tehran under Hassan Sedigh, one of Iran's leading oil and gas attorneys. She also interned in his law office, where she worked with executives at big oil companies from all over the world. The experience eventually helped win her a scholarship from Royal Dutch Shell to pursue a master's degree in law at the University of Cambridge in England in 2008 and 2009. "People are really intrigued by her, especially in the West," says Jonathan Stern, Hassanzadeh's dissertation adviser and the founder and chairman of the Oxford Institute for Energy Studies' natural gas research program. "A young Iranian woman with great English skills, an academic background, real-world experience, and a law degree isn't like anything anyone's ever seen before."

In terms of shock value, it's not only that Hassanzadeh is a woman in the largely male world of oil and gas. It's what she says. To her Iranian clients—CEOs her father's age, desperate to nail down foreign partners after sanctions are lifted—Hassanzadeh tells them they're not ready. Sure, well-connected Iranian companies can take small stakes in oil exploration and development deals, cede operational control to international oil companies, and sit back and collect dividends if the projects pay off. But Iran needs technology, know-how, and good jobs, and such things don't come from these types of "semicolonial" relationships prevalent elsewhere in the Middle East, she says.

For Western companies to make joint ventures with Iranian partners on more equal terms, Iran must first build an "investment infrastructure" of independent auditors, lawyers, consultants, and courts that foreigners can trust, Hassanzadeh says. This takes time and a societal commitment to the rule of law. As of now, Iran doesn't even have a reliable credit reference system.

"We're trying to build this foundation," she says. "We're telling people, 'Calm down, relax, there's enough food for everyone. Don't do anything now you'll regret later.' "

To potential Western investors, just as eager as Iranians to establish ties, she counsels patience. Her book, *Iran's Natural Gas Industry in the Post-Revolutionary Period—Optimism, Skepticism, and Potential*, has a whole chapter on corruption and Iran's need for legal reform. It was a hit with leaders at many of the big European oil companies that underwrite the Oxford Institute for Energy Studies, according to the institute's Howard Rogers, who spent 29 years with BP. The powerful research center is the locus of her influence outside Iran. After her book came out, she gained foreigners' respect for having a clear-eyed view of Iran's problems, and for not simply trying to earn a quick commission as a middleman. "Elham's perspective is not one of unalloyed optimism," Rogers says. "She has a realistic business sense of the challenges ahead."

While graybeards in turbans generate most of the headlines, it's the young who are driving Iran's reengagement with the West. Two-thirds of the nation's 78 million people are under 35; almost 60 percent of high school graduates attend college, roughly the same rate as in Britain and France. The demand for jobs and a sense of normalcy by this educated demographic bulge is the gravest long-term threat to the Islamic regime—and its greatest human asset, Hassanzadeh says.

Zanganeh, the oil minister, a no-nonsense technocrat, has surrounded himself with relatively young staffers in their 20s and 30s. They're linked to former professors, classmates, and friends throughout the vast Iranian diaspora.

Another point of tension: While women now make up more than 60 percent of the nation's college students, they're only 18 percent of its workforce. Education is cherished in Iran, but marriage and stay-at-home motherhood are pushed even harder, particularly by husbands. Hassanzadeh, who is single, says the worst discrimination she's felt came from flirty senior executives at meetings "who think because you're a woman you should be open" to their sexual advances. But they're the exception, she says, with most male oil executives going out of their way to be helpful. "It's always like, 'We can't really believe a woman could get to your level of being so outspoken,' " she says.

At a morning meeting in October at Namvaran, a large petroleum engineering company, Hassanzadeh and the director of business development, Parinaz Tahbaz, are treated to a rare event in the Middle East: The two female executives are served by a middle-aged office tea man. Tahbaz was one of four women to graduate with an engineering degree from Tehran University in 1996, along with 78 men. Now 70 percent of Iranian science graduates are women, she says. When she joined Namvaran the year she finished school, 2 out of 40 engineers in her department were women. Today 45 percent of the staff at the company is female, and Tahbaz is the first woman among Namvaran's five shareholders and members of the board. To earn the trust of the men, she had to work 14-hour days, spend long stretches on the road at job sites, and forget about having children, she says. "My husband knows Namvaran is my first family."

Hassanzadeh hasn't decided if she'll have a family. Iranian men aren't interested in marrying women who are well educated and financially independent, she says—"How are they supposed to control you?" Women either need to get married when they're 17, "before you're too intimidating," or forget about their careers, she says. Hassanzadeh knew she wanted to get her Ph.D. before settling down. "I've been told if I meet a man I like, just don't tell him what I do," she says.

Hassanzadeh likes beating men at their own game. "I needed to break that boundary, to get into an arena where men have always been and continue to enforce their dominance," she wrote in an e-mail. "I love the power/ecstasy/excitement which this sector offers me as a woman to fight head-to-head with men—that exact moment when you've not only crossed the boundaries, but have placed yourself ahead of men, that exact moment

"I needed to break that boundary, to get into an arena where men

when you’re the only female panelist on a high-caliber panel of seven or eight men and they all remain silent and impressed by your insight.”

When she first moved to Cambridge to earn her master’s degree, Hassanzadeh made fast friends with the American students—“the Brits kept boundaries,” she says. She visited the U.S. for the first and only time in December 2007. What was supposed to be a two-month trip, however, lasted only 10 days. Traveling alone through Washington Dulles International Airport, Hassanzadeh, then 23, was culled from a security line and directed into a secondary screening device called a puffer machine. The air blast lifted her shirt. Hassanzadeh panicked inside the glass chamber. A Transportation Security Administration supervisor, trying to calm her down, became overly friendly, she says. “That’s how you treat a young woman who has no idea what’s going on?” she asks. “You flirt with her?” She ended the trip after another verbal encounter with some horny male revelers on New Year’s Eve in Times Square. “I never wanted to go back to the States again,” she says.

After earning her master’s at Cambridge, Hassanzadeh, then 25, was appointed the youngest law lecturer ever at her alma mater in Tehran. At that point, conservative President Mahmoud Ahmadinejad was at the height of his power; he and Supreme Leader Ayatollah Ali Khamenei crushed the Green Revolution protesters in 2009 with baton-wielding militiamen and mass arrests of democratic activists. Hassanzadeh avoided discussing politics in the classroom, aware she was under special scrutiny for having lived in the West. She wouldn’t play favorites, either. She helped arrange an internship at the chamber of commerce for the studious son of a commander of the Basij, or Islamic militia. But she flunked the slacker son of another militant family, who then threatened to report her as a subversive to the university’s intelligence branch if she didn’t change his grade. She kicked him out of class and notified campus police.

An intelligence officer summoned Hassanzadeh for questioning. He said she’d been accused of speaking against the Islamic regime and presented her with a thick file on her travels the past five years. “Why’d you leave Iran so often?” he asked. She told him about her graduate studies and the abortive U.S. trip and turned over audio recordings of all her university lectures, which she’d assiduously taped for just such an inquiry. Her accuser was ultimately expelled. Hassanzadeh received a formal apology from the intelligence officer, expressing his fervent hope that she’d stay in Iran to continue serving the people.

She bolted for Oxford. “Ahmadinejad’s reelection was like a heart attack,” she says. “Everything collapsed, and everybody was suspecting each other. I said, ‘I’m leaving.’ ”

have always been and continue to enforce their dominance”

The timing was perfect. When Hassanzadeh finished her energy dissertation in 2013, Rouhani was assuming the presidency. Fed up with “big-mouth” Iranians abroad who rant about the regime but won’t go home to help, Hassanzadeh returned to Tehran to start Energy Pioneers. Her co-founder, Nima Fateh, 44, had been a senior adviser to Mohammed Khatami, the reformist former president.

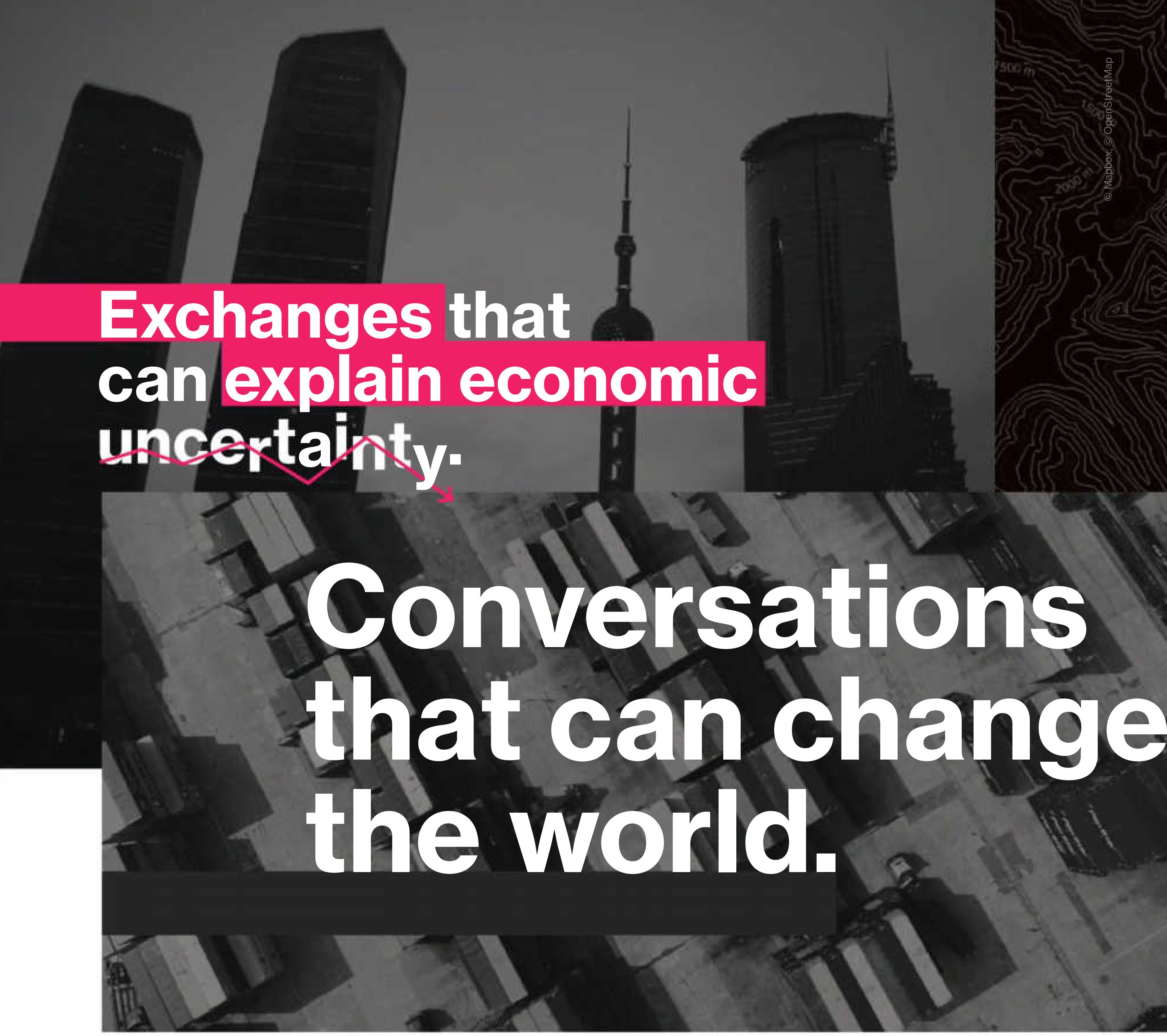
A lot of their work is assisting Iranian companies with preparing financial documents and feasibility studies that Western investors can trust and understand. The Saudi tensions haven’t hurt, so far. European companies continue reaching out for help, she says. Both sides remain bewildered. “They’re both speaking English, but from two different planets,” she says. Many of her Iranian clients, for example, assume that after sanctions they’ll be able to gain access to overseas funds for petroleum projects at roughly the same risk premium they paid before the Ahmadinejad tenure 15 years ago. Iran, after all, is a bastion of stability compared with the rest of the Middle East, they say. If the risk premium back then was 2 to 4, meaning Iranians could borrow money for projects at a benchmark interest rate plus 2 to 4 percentage points, “it’s now above 10,” Hassanzadeh says, citing a recent conversation with an investment banker in London. “I’m telling clients, ‘Guys, don’t be delusional!’ ”

Hassanzadeh’s most advanced project is an enormous complex of natural gas refineries that’s planned to be the largest in the world. Located in the ancient port village of Siraf on the Persian Gulf, the project consists of eight interlinked refineries, to be built and owned by eight private companies with investments of $350 million each. The government is providing the gas from the South Pars field and pitching in about $1 billion of infrastructure. Three of the companies have hired Hassanzadeh to seek out foreign partners.

She wants to sign on more clients, which is what brings her to tea with Parinaz Tahbaz at Namvaran. The petroleum engineering company in Tehran is one of eight companies designated by the government to develop Siraf. As the cups are cleared away by the tea man, Hassanzadeh and Tahbaz commiserate about the need to rebuild Iran’s image. Hassanzadeh describes her “near panic” reading through one of her Siraf client’s feasibility studies before meeting prospective foreign investors. “They were incomplete, biased, and not professionally prepared,” she says.

Tahbaz says Namvaran isn’t ready to hire outside experts for help yet. Her company first wants to narrow its list of potential foreign partners. American companies in particular are beginning to reach out to the company through third parties, expressing “even stronger interest than the others because this is an untouched market for them with huge opportunities,” Tahbaz says. “It may take some time, but people will understand that Iran is a country they can bank on.”

Hassanzadeh agrees, but says financing is more likely to come from Japan, Korea, and China than Europe or the U.S. Still, she says that, in spite of her unhappy New Year in America, she knows how much Iranians love American technology and prefer U.S. goods over products from Europe and Japan. Within a few years, she says, even American oil producers will be back in Iran, where they’ll be welcomed with open arms. “They’ll get priority over everyone else.” B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can explain economic
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that can change
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ETC

THE INDEPENDENT FILM

To make the movies she wanted, Kelly Reichardt had to go it alone

By Logan Hill

Photograph by Boru O'Brien O'Connell

In the winter of 1994 director Kelly Reichardt almost missed the Sundance Film Festival debut of her first film because she was stuck on a train.

"I couldn't afford the plane tickets," says Reichardt, shrugging her slight shoulders in a Manhattan cafe. "The train froze on the tracks and took five days instead of three. We got there just in time for our premiere. We hadn't showered in five days. We were total grease heads."

Debut: 2016

Certain Women
Budget: more than $1 million (exact figure unknown)

Reichardt was one of two women filmmakers at the Park City, Utah, festival that year. Her feature, *River of Grass*, which she describes as "a road movie without the road, a love story without the love, and a crime story without the crime," got strong reviews, though some of her peers were not so supportive.

"I remember Kevin Smith was there with *Clerks*," she says, sipping a chamomile tea. "He's in this book [*Spike, Mike, Slackers & Dykes* by John Pierson] talking about my film and how it's an example of a film that should have never been made. They say that it looks like it was shot on postage stamps. The guy who made *Clerks*..." She pauses for wry emphasis: *Clerks* was memorably low-fi. "That's the kind of friendly Sundance camaraderie back in the day. But there were other, nicer folks."

Originally released: 1994

To be re-released: 2016

River of Grass
Reichardt's first commercially released film

"WE OPERATE IN A GRAY AREA—DIRECTOR-DRIVEN FILMS IN A CELEBRITY-HUNGRY MARKET. THIS IS THE LINE WE WALK EVERY DAY"

That year, the festival launched the careers of the fanboy kingpin Smith (*Clerks*, *Chasing Amy*), as well as perennial Oscar contender David O. Russell (*Spanking the Monkey*, *Joy*) and documentarian Steve James (*Hoop Dreams*, *Life Itself*), to hard-earned, near-immediate acclaim. For Reichardt, it was the beginning of a more circuitous journey that, like her ill-fated train ride, took much longer than necessary. Although *River of Grass* was later nominated for three Independent Spirit Awards, she was unable to make a second film for 12 years. Reichardt returns to Sundance this year with a restored print of her first film, as well as her sixth feature, *Certain Women*, starring Laura Dern, Kristen Stewart, Michelle Williams, and newcomer Lily Gladstone. Immediate acclaim, however, has remained out of reach.

Reichardt's gender has a lot to do with this. The industry continues to wrestle with systemic gender discrimination, as the Sony e-mail hack revealed. Salary disparities affect even Hollywood's most bankable woman, Jennifer Lawrence. Exactly zero of 2015's 10 highest-grossing films were directed by women—as well as zero of the top 10 movies listed by the National Board of Review and the American Film Institute. According to the Center for the Study of Women in Television and Film, 85 percent of films released commercially in 2014 were directed by men; 80 percent were written by men; 92 percent were shot by male cinematographers. In October the Equal Employment Opportunity Commission opened a formal investigation into Hollywood's hiring practices.

So far, the conversation has followed the money: When will a woman direct a Marvel movie? A sci-fi epic? Why, after the smash-hit success of the woman-helmed *Frozen* and *Kung Fu Panda 2*, was not a single animated film directed by a woman last year? Why did Sundance darling Colin Trevorrow get to direct *Jurassic World* after making only one small-budget film? "It feels like a different conversation, because that's not about telling the stories that matter to me," Reichardt says, adding that the debate often feels like women are asking, "'Can I make a movie as crappy as those movies?' How awesome."

But discrimination doesn't just touch women who want to be the next Steven Spielberg. Unlike Smith (who comes back to Sundance this year with his 12th film, *Yoga Hosers*, starring his daughter, Harley Quinn Smith, opposite Johnny Depp's daughter, Lily-Rose Depp), Reichardt struggled to convert promise into a career. A project Jodie Foster was set to produce died in development. "I had 10 years from the mid-1990s when I couldn't get a movie made," she told the *Guardian* in 2011. "It had a lot to do with being a woman. That's definitely a factor in raising money." She

2006

Old Joy
Budget: $40,000

CERTAIN WOMEN: NICOLE RIVELLI/ COURTESY OF SUNDANCE INSTITUTE; BOX OFFICE FIGURES: BOXOFFICEMOJO.COM

couch-surfed for five years, eventually taking a job teaching at Bard College.

Reichardt brought her second film to Sundance in 2006. *Old Joy*, a hushed, meditative ramble of a film set in the Pacific Northwest with no stars and ominous Bush-era overtones of bygone youth, was made for only $40,000. It was one of the festival's hits, landing on scores of critics' yearend top-10 lists.

Wendy and Lucy
Box Office:
$1.2 million (her highest-grossing movie)

Reichardt's next film, the 2008 heartbreaker *Wendy and Lucy*, was her true breakout. Starring Williams as a vulnerable woman who loses her dog and anything resembling a safety net, it evoked the fearful tension of America as it fell into recession. The fraught, elegant film earned a Cannes premiere and a slot on the American Film Institute's Top 10 Films of the Year list. *New York Times* critic A.O. Scott championed the movie and named Reichardt a leader of a "Neo-Neo-Realism" movement.

Meek's Cutoff
Box Office:
$978,000

In a business dominated by global franchises, director-driven films not based on branded intellectual property are hard to finance. Personal films by female filmmakers are doubly difficult, but Reichardt's ability to keep budgets low and attract top-name talent has been a virtue.

Wendy and Lucy was the first of her four collaborations with the Brooklyn, N.Y.-based studio Filmscience, which went on to produce her oblique Oregon Trail Western *Meek's Cutoff*, the tense eco-thriller *Night Moves*, and *Certain Women*. On the strength of Reichardt's reputation and her latest movie's cast, the company was able to presell global distribution rights for the film to Sony Pictures Worldwide Acquisitions before its Sundance premiere. In Park City it will look for a domestic-release partner.

"We've all been incredibly fortunate in that amazing actors want to work with Kelly and make big concessions to do so (both financially and in terms of amenities they may be accustomed to on bigger films)," Filmscience producers Neil Kopp and Anish Savjani wrote in an e-mail. "We operate in a gray area–director-driven films in a celebrity-hungry market," they added. "This is the line we walk every day."

Actors such as Jesse Eisenberg (who starred in *Night Moves* after the *Social Network*) and Stewart (who stars in *Certain Women* after having made her name in the *Twilight* movies) are drawn to Reichardt because she offers them roles Hollywood does not.

"I'm the one who was lucky to work with Kelly, not the other way around," says Williams, who also starred in *Meek's Cutoff*. "When I saw *Old Joy*, there wasn't a question of her gender, of the size of the film, or the crowds it may or may not draw. I wanted to be directed by that keen and subtle eye. I wanted to let mystery hang in the air of a film. I wanted the dignity and space she allowed her characters."

"Kelly is one of the true pioneers in fierce, make-it-your-way, independent filmmaking," Dern says. "She'll make movies however she needs in order to allow for that kind of freedom."

Reichardt's good friend and producer, the filmmaker Todd Haynes, was nominated for best director at this year's Golden Globe awards for his film *Carol*, which was nominated for best drama. If Reichardt were a man, he says, "the integrity of an entire and an extraordinary body of work would have been more visible by now. It's very hard to come up with other filmmakers in the independent film community who've made such uncompromising work so consistently, with such a clear, precise, and resonant vision."

Instead, Reichardt's work has quietly, steadily accrued greater resonance, much like one of her enigmatic films. "I'm usually not moved in the moment during her films," says Sundance Festival Director John Cooper. "It's more of a collective effect. You feel like you watched something quietly become powerful."

This year, 22 of the 54 films in competition at Sundance, or 41 percent, were directed by women. But critics have proclaimed it the "year of the woman" before, and despite the isolated success of directors such as Kathryn Bigelow, Ava DuVernay, Jennifer Lee, and Elizabeth Banks, the overall statistics have barely budged. Reichardt, who's been interrogated about the role of women in Hollywood since her debut 22 years ago, says she feels a bit trapped by the unchanging discussion. "This is a losing conversation for any woman to have–to hell with the women-in-cinema thing," she says, sighing more out of fatigue than pique.

Night Moves
Box Office:
$272,000

Reichardt has always preferred to let her work speak for itself, so she perks up when asked to describe what's at stake for the character in her new film. Set in Montana, *Certain Women* features a hostage situation and feuding lawyers. But Reichardt says it's less about topical conflict and more about women finding ways to live their particular lives. She could be describing her career.

"It's about small struggles, just small, personal politics with strangers, with neighbors, with husbands," she says. "And I think it might be about entitlement on some level: what some people feel they have coming to them and the expectations other people just don't have." Ⓑ

Get a Hearty Start

Four experts give their takes on the most important meal of the day

By Evan S. Benn

Your main:

DARK COCOA ALMOND OATS TOPPED WITH ESPRESSO YOGURT

For a quick, make-ahead breakfast that'll get you through the work week, mix 2½ cups rolled oats with 2½ cups unsweetened almond milk, 5 tablespoons cocoa powder, 5 tbsp. maple syrup, 1¼ teaspoon cinnamon, ¼ tsp. vanilla extract, and a pinch of sea salt in a Tupperware or other covered container. Stick it in the fridge, and in the morning you'll have a creamy, no-cook oatmeal. For the topping, stir 1 cup Greek yogurt, 1 shot espresso (about 2 ounces), and 1 tbsp. maple syrup in a separate container until no lumps remain.

"The richness of the dark cocoa is brought out by the espresso yogurt," says chef Nicole Votano, who serves a version of the recipe at her new restaurant Dirt in Miami Beach. The fiber and healthy fats will keep you full and productive all morning.

Your booster:

BLUEBERRIES

"My breakfast of champions is yogurt and blueberries," says Lee Schrager, co-author of the forthcoming *America's Best Breakfasts*. Blueberries add vitamin C and other antioxidants to whatever you're planning to eat. And don't be skimpy: They contain fewer than 100 calories per cup.

Your side:

A PERFECTLY POACHED EGG

Eggs deliver protein, vitamin D, and assorted essential minerals. Chef César Vega at Chicago's new Café Integral gives his eggs a 60-minute bath in a *sous vide* cooker (such as the Anova precision cooker, $199; anovaculinary.com) for thick, runny yolks and yielding, quivering whites. To get similar results the old-fashioned way, bring a pot of water to a simmer, then turn the heat to low. Break an egg into a small bowl and carefully tip it into the water. Cook, swirling water occasionally, for about 4 minutes, then remove with a slotted spoon and serve.

Your indulgence:

BLOOD ORANGE OLIVE OIL AND TARRAGON BREAD

Typical pound cake is too dense and sweet for breakfast, says Los Angeles pastry chef Hedy Goldsmith. Her alternative? **Lighten up** the old standard with fresh tarragon, which she calls "the new basil," local blood oranges (bought at Southern California's fabulous farmers markets and "picked this morning"), and peppery olive oil. Order a loaf online ($28; sweethedy.com) and have it shipped overnight—the oil keeps the bread from drying out.

PHOTO ILLUSTRATION BY WYNE VEEN FOR BLOOMBERG BUSINESSWEEK; SOURCE: 731 (2) ALAMY (4)

GREED IS GRIPPING

With Billions, *finance drama enters its golden age*
By Sheelah Kolhatkar

You can almost picture the pitch meeting between the creators of the Wall Street legal drama *Billions* and a team of suits at Showtime. It's a show about a hedge fund manager, the producers would have said, and a suspicious pharmaceutical trade. And a bunch of securities fraud investigators. The cable television executives would have shuddered at the words "hedge fund," a term that few New Yorkers even understand, let alone those outside the financial capital. And it only gets worse from there.

Hollywood has long considered the financial world to be fatally boring—which, considering the vast sums of money, drama, and corruption coursing through it, represents a major creative failing. With the movies *The Wolf of Wall Street*, *Margin Call*, and *The Big Short*, and now the series *Billions*, premiering Jan. 17, the entertainment industry looks to finish the job. But if anything, it undersells how insane things can really get.

Much of what goes on at hedge funds involves guys wearing chinos tapping at computers, which isn't exactly edge-of-your-seat action. It's a narrative challenge that I've thought about a great deal while writing a forthcoming book about the story that inspired *Billions*, the decade-long pursuit of Steven Cohen, the founder of SAC Capital Advisors, by the Securities and Exchange Commission, the FBI, and the Manhattan U.S. Attorney's office. Fortunately, in this case, reality is weirder than anything you could make up: SAC traders bribing sources with lobsters, smashing hard drives, and being forced to cross-dress. *Billions*' creators—producer/writers Brian Koppelman and David Levien, and financial journalist Andrew Ross Sorkin—sanitized some of the details, amped up the sex, and massaged it all into the familiar format of a legal drama or police procedural. For the most part, it works.

THE REAL-LIFE STEVEN COHEN CASE IS CRAZIER THAN FICTION

The action centers on Bobby Axelrod, the manager of an immensely successful hedge fund called Axe Capital, which is housed in an office that looks like an art gallery. Many elements of Axelrod's universe come from Cohen's life, especially the clouds of suspicion from securities regulators that surround him. But beyond the surface, the two bear little resemblance. Axe, played by Damian Lewis, isn't a socially awkward, reclusive trading savant, as some have described his real-life counterpart. Rather, he's handsome and likable, with a smooth ruthlessness that borders on scary.

The producers take similar liberties with Cohen's nemesis, the U.S. attorney for the Southern District of New York, Preet Bharara. Here, he's known as Chuck Rhoades, played with inspired unease by Paul Giamatti, who channels insecurity into cold-blooded ambition in his desperate pursuit of Axelrod. "Axe is no ordinary billionaire—he's an icon of the wealth of our age," Rhoades says. "And he's a fraud." While Cohen's character got an upgrade, Bharara, who is Indian American, will probably not love being de-ethnicized and depicted as a prickly, power-hungry schlub, but the character adjustments make it easier to root for the bad guy against our better judgment. The best character of all may be Rhoades's wife, Wendy, played by Maggie Siff, who works as an in-house shrink at Axe Capital, making the professional drama personal. (In reality, a now deceased psychiatrist named Ari Kiev roamed SAC's halls, offering coaching services to Cohen's traders.)

In the sixth episode, Rhoades has a brief exchange with his deputy, Bryan Connerty (Toby Leonard Moore), in which Connerty pleads with his boss not to wuss out and settle the case. "I just don't want Axe to walk away with a fine and a family office," Connerty says. "I just want to take this one to trial, let the jury decide." Close readers of the post-financial crisis business pages know that, while SAC Capital faced heavy fines, Cohen himself never saw the inside of a courtroom, let alone a jail cell. Just this month, he reached a favorable settlement with the SEC on one of the final lingering charges. In these vengeful moments, *Billions* seems most like a typical crime show. What's a good legal drama, after all, if the prosecutor doesn't get his man? Ⓑ

ILLUSTRATION BY OTHER MEANS

POWDER PLAY

Forget Park City. Hit the slopes this winter at these six emerging ski destinations. By Maridel Reyes

Lyngen, Norway

Inside the Arctic Circle on Norway's Lyngen fjord, skiers and splitboarders can hike up mountains and ski down to the beach. (Snowboarders, alas are not allowed.) The peaks rise directly from the fjord, and you're pretty much guaranteed first tracks on untouched powder.
Après-ski: Refuel with afternoon tea, soup, cakes, and waffles at Lyngen Lodge, then alternate between the sauna and outdoor hot tub like a seasoned Scandinavian.
Where to stay: Book a six-day, seven-night Summit to Sea package at the lodge. From November to March, depending on weather conditions, you might see the Northern Lights from your room. *$4,345 per person, meals and transfers included; lyngenlodge.com*

Mauna Kea, Hawaii

This is for serious skiers only. There are no resorts, lifts, or ski patrol, and at 13,796 feet, the courses are extreme. Hire a driver from Mauna Kea Ski Corp., or rent a four-wheel-drive vehicle to haul yourself to the summit and ski down the "pineapple powder," with its particular crumbly texture.
Après-ski: The altitude, dry air, and isolated location make the area ideal for stargazing. The Maunakea Visitor Information Station hosts free nightly viewing sessions from 6 p.m. to 10 p.m.
Where to stay: Indulge in a traditional Hawaiian *lomilomi* massage at the Fairmont Orchid. Take a beachside stroll in the afternoon, when sea turtles come onshore to bask in the sun. *From $321 per night; fairmont.com/orchid-hawaii*

Yongpyong, South Korea

The biggest ski and snowboard resort in Korea, Yongpyong will host the 2018 Winter Olympics. Nestled in the Baekdu-Daegan Mountains a two-hour drive east of Seoul, the resort offers a glimpse of the Sea of Japan on a clear day.
Après-ski: Carnivores should check out Hanwoo Town, a Korean barbecue restaurant, to sample the country's specialty: tender, fat-marbled beef from cattle raised on beer-enriched feed three times a day.
Where to stay: Yongpyong's Dragon Valley Hotel is just steps from the slope. Request an odd-numbered

NORWAY: COURTESY LYNGEN LODGE. KOREA: SHIN WOONG-JAE FOR BLOOMBERG BUSINESSWEEK. UAE: JOHN ELK/GETTY IMAGES

room in the renovated wing to face the mountains. *From $270 per night; yongpyong.co.kr*

Oukaïmeden, Morocco

See the dunes of the Sahara shimmering in the distance from the Moroccan ski resort of Oukaïmeden, 45 miles south of Marrakech in the Atlas Mountains. The resort has all the amenities you'd expect—rentals, ski school, and restaurants—at dramatically lower prices than in the U.S. or Europe. Trails aren't well-marked, so hire a guide.
Après-ski: Sun yourself on the terrace and order French fare and cocktails at the fireside bar at Hotel Le Courchevel, which overlooks Mt. Jebel Attar.
Where to stay: Oukaïmeden's hotels are fine, but those in Marrakech, only an hour away by car, are much nicer. The new all-suite Mandarin Oriental Marrakech is spread across 50 acres of gardens and olive groves only 10 minutes from the markets of the medina. *From $707 per night; mandarinoriental .com/marrakech*

If your winter season is already a bust, you can ski next summer in Lesotho, Africa's "Mountain Kingdom," and New Zealand, where you can carve turns on an active volcano.

Dubai, United Arab Emirates

This 242,188-square-foot indoor ski area is located inside the massive Mall of the Emirates. A 25-story "mountain" has five slopes, including a freestyle area for snowboarders and sledders and the world's first indoor black diamond run.
Après-ski: Visit the penguin habitat, where, once a week, two lucky adult guests can swim with the creatures for 10 to 15 minutes for $35 each.
Where to stay: An over-the-top ski trip in the desert calls for a stay at the Burj Al Arab Jumeirah, the opulent, all-suite hotel famed for its fleet of Rolls-Royces, full-size Hermès bath amenities, and celebrity guests. *From $2,103 per night; jumeirah.com/en/hotels-resorts/dubai/burj-al-arab*

Brasov, Romania

The town's resort is called Poiana Soarelui, meaning "sunny glade," and you'll see a lot of them as you whoosh around through the sunlit conifer forests of the Carpathian Mountains. French, German, Italian, and Swiss families have been coming for years to this budget ski destination, a three-hour drive from Bucharest. The runs are well-groomed; plus, the resort has two 262-foot ski jumps and a skating rink.
Après-ski: You're in Transylvania, so plan a visit to nearby Bran Castle, which inspired Dracula's haunt in Bram Stoker's classic novel.
Where to stay: Ana Hotel Sport & Spa at the foot of the slopes is a sleek, Alpine-style property backed by forests with mountain views—and a four-minute walk to the chairlift. *From $160; anahotels.ro/sporthotel/default-en.html*

The Confidence Game: Why We Fall for It...Every Time (*Viking, $28*), out Jan. 16

ESCAPE FROM AD LAND

In her new book, Maria Konnikova unveils the dastardly ways of con men—and marketers. Can you avoid their schemes? Play our game to find out. By Jennifer Miller

You'll need

- A single, six-sided die
- Playing pieces of your choosing

The rules

1. Roll the die and move ahead the number of spaces indicated.

2. Wherever you land, follow the instructions. If there are no instructions where you land, your turn is over.

3. First person to get to the Temple of Self-Control is the winner.

Con artists rely on willing subjects, aka marks. The best thing you can do for yourself is to avoid the pitch entirely.

Install ad-blocking software.

Take the Bridge of Blissful Ignorance

LeBron James sinks a swish shot while wearing Nikes. You think: No way that was the shoes.

Move ahead 1 space

"When you want something to be true, your skepticism goes down," Konnikova says. Identify your insecurities–your horrible hook shot, for instance–and you won't be so tempted when advertisers appeal to them.

A mattress ad during a podcast promises you "the best sleep of your life" and a full refund if you're not satisfied. You hit pause and check out the website.

Forfeit your next turn

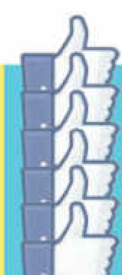
This kind of ad "increases the appeal of the product while simultaneously decreasing your resistance to purchasing," she says. "Most people are attracted to one or the other message–or both. It gets everyone."

Instead of buying the $7 sustainable, organic, fair-trade latte, you opt for a cup of regular Earl Grey.

Move ahead 2 spaces

According to Konnikova, "we want to affirm our best, most deserving self," so we make choices to fit that vision. Not that there's anything wrong with buying expensive coffee, but it doesn't make us humanitarians.

BRIDGE OF BLISSFUL IGNORANCE



You're so *verklempt* over the cell phone commercial where the parents finally get to talk to their soldier daughter on Christmas, you share the video on Facebook.

Go back 3 spaces

"Even if we're skeptical that everything will work out in our own lives, we're vulnerable to watching it in a fictional setting," she says.

A startup cleaning service is giving new users a $50 discount. The deal is tempting, but you're perfectly capable of vacuuming your own apartment.

Move ahead 3 spaces

"So many monthly services are offered with the first month free, and then you're on the hook paying for something that you really don't want," she says.

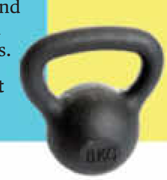
Agree to a department-store makeover.

Go back 1 space

Konnikova once bought an expensive face cream after an in-store makeover. "It had been hours since I'd moisturized," she says. "Of course my skin looked better."

Recommend the life-changing powers of your new kettlebells to a friend after using them for only three days.

Go back to start



Marks who've been conned avoid facing reality. "You've already committed so much time and money that you self-justify," she says.

BRIAN LITTLE

56, head of human resources, Zurich North America, Schaumburg, Ill.

What do you do all day?
The easiest way to explain it is "people strategy"– empowering, developing, and retaining people.

So you're a people guy. How does your wardrobe help you connect?
I think what I wear conveys that we're in a professional environment, but also it's fun, which helps people understand me quickly.

How would you describe your style?
Corporate but cool.

Tell me about your suit.
My wife bought it for my birthday. Nearly all my clothes have some sort of meaning. I have a watch we bought in Greece when traveling for our anniversary.

What's your pocket-square strategy?
Just that they're not ugly.

Do you fold them?
I'm not really good at folding pocket squares. I've tried every way, and now I just fold them in an exact square and stick them in.

Does your office have a dress code?
I work in an industry that is conservative but also allows you to express yourself. We have a European style, because our headquarters are in Zurich.

Why no tie?
We do a lot of field office visits, and if you're overly conservative in your dress, it turns people off. I like ties– I probably have 50 or 60. But it's easier to communicate with a wider variety of people without one.

PHOTOGRAPH BY RYAN LOWRY FOR BLOOMBERG BUSINESSWEEK

Interview by Arianne Cohen

How Did I Get Here?

KERI PUTNAM

Executive director, Sundance Institute

"I fell in love with theater early, maybe even in middle school. I was a lead in Thornton Wilder's *The Skin of Our Teeth*—a very, very poor lead, but game!"

"The apprentice program is for aspiring actors, but I ended up in the literary office. It opened up a whole new world."

Education

Princeton Day School, Princeton, N.J., class of 1983

Harvard, class of 1987

"Harvard didn't have a theater major, so I designed one."

During high school, 1983

HBO

"I came to HBO at a time when, if you were an eager learner, you could grow with the company."

With Hillary Clinton and Cher at an HBO event, 1996

Work Experience

1986
Williamstown Theatre Festival, summer apprentice

1987–90
Assistant, assistant manager, manager, HBO

1990–92
Freelance TV and film producer

1992–2002
Vice president, senior VP for original programming, HBO Films

2002–06
Executive VP, HBO Films

2006–09
President of production, Miramax Films

2010–Present
Executive director, Sundance Institute

"In the early 2000s, with *The Sopranos* and *Sex and the City* being launched, you could see the growth area at the network wasn't going to be movies."

"I lived in Brooklyn before Brooklyn was cool. It was really exciting to be in the creative community in New York at that time."

Walt Disney Pictures

In 2009, Miramax is shut down by its parent company, Walt Disney

"There were probably jobs available to me that would have offered more money and more power. But for me, it was important to step back and figure out what I enjoyed and cared about."

With son Eli, 2004

"I love working with artists. I always have. I really believe that artists are critical to the richness of the culture in which we're living."

With director Ryan Coogler and actor Kerry Washington at a benefit for the institute, 2013

Life Lessons

1. "Find something you are uncomfortable with and practice it." **2.** "Mentoring younger colleagues builds a wonderful network." **3.** "Even a job that seems far from your career goals can expose you to ideas you will carry with you."

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